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French Limited Wetlands Mitigation

Site Selection Report

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Site Selection Report

French Limited Wetlands Mitigation

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Site Selection Report

French Limited Wetlands Mitigation

I. Background

The French Limited Project is located within Harris County, near the town of Crosby. This site was at one time utilized for the disposal of industrial wastes. It was later declared a Superfund site and has been undergoing remediation for several years. On March 10, 1993, a United States District Court entered a Natural Resources Consent Decree requiring the site PRPs (the French Limited Task Group or FLTG) to undertake a "marsh restoration project" to provide for replacement of natural resources injured, destroyed, or lost as a result of releases (or threatened releases) of hazardous substances at or from the French Limited Site.

A Project Review Group was established in accordance with the Consent Decree. This group consists of one representative each from the Department of the Interior (U.S. Fish and Wildlife Service), NOAA, the Texas Natural Resource Conservation Commission, Texas Parks and Wildlife Department and the Texas General Land Office. This group is responsible for the evaluation and approval of the site identified for the marsh restoration, review and approval of the marsh restoration plan, and oversight of implementation of the marsh restoration plan.

The Consent Decree required that a 21 to 25 acre site be selected and "acquired or caused to be acquired" for this wetlands mitigation project no later than March 10, 1994. This site must be deemed "suitable" for marsh restoration by the Project Review Group. The decree also called for the site to be (or be made to be) tidally linked to the San Jacinto River and, if possible, be in the general vicinity of the French Limited Site.

II. Scope of Work

FLTG hired Crouch Environmental Services (CES) to execute the Scope of Work. The work scope for the Site Selection phase of the French Limited Wetlands Mitigation project was as follows:

- Define wetlands restoration response options;
- Develop specific agency requirements;

- Develop restoration site evaluation and selection criteria (including location, acquisition cost, restoration cost, wetlands enhancement potential and community involvement);
- Identify, characterize and evaluate potential wetlands response sites; and
- Recommend the "best" site, including a justification for the selection and a detailed description of the selection.

III. Identification of Wetlands Restoration Response/Site Selection Options

The following options for selecting a site or sites and responding to the Consent Decree should be evaluated:

- Enhancement of an existing wetlands site or sites
- Restoration of a degraded or destroyed wetland
- Creation of an entirely new wetlands site
- Selection of a single, large site
- · Selection of multiple, small sites.

These options were presented to the Project Review Group for their consideration. The consensus opinion indicated that creation of a single, large site was preferable.

IV. Site Selection Criteria

Criteria were developed for screening the identified sites. Specific criteria were developed for the following five general criteria:

- Environmental/Technical Criteria
- Sociological Criteria
- Political Criteria
- Economic Criteria
- Risk Criteria.

Table 1 lists specific criteria considered within each of the five general criteria.

Table 1
Site Selection Criteria

Environmental /Technical	<u>Sociological</u>	Political	Economic	Risk
Hydrology/ topography	Community benefits - education, observation	Proximity to French Site	Land acquisition cost	Subsidence
Wave Stress	Accessibility	Acceptance by Regulators (Project Review Group)	Excavation cost	Types of wetlands listed in order of most successful to most risky:
Wetland type: Estuarine Freshwater	Perception - how the community will view the selection of each site as compared to others	Perception: Community Local Public Officials Statewide officials Federal Officials	Disposal cost (trees; excavated soils; etc.)	Estuarine marsh - brackish to intermediate Coastal Marsh Freshwater marsh hydrogeologically connected to surface water
Impact on local, high quality habitat	Aesthetics		Time constraints = additional cost	Isolated surface water marsh (freshwater)
Soil type	Community acceptance			Forested wetland (freshwater) hydrogeologically connected to surface water body
Size and configuration	Future site ownership - entity willing to own and maintain?			Isolated freshwater marsh or forested wetland dependent on groundwater
Susceptibility to natural disasters	Number of possible visitors			

Site Selection Criteria

Environmental /Technical	<u>Sociological</u>	<u>Political</u>	<u>Economic</u>	<u>Risk</u>
Threatened and endangered species				
Past Site Uses				
Surrounding land use:	***			
Buffer zone				
Compatibility				
Detrimental activities nearby				
Type of wetlands project - i.e. restoration, creation, or enhancement				

V. <u>Methodology for Identification of Potential Sites</u>

An aerial overflight of the lower San Jacinto River area was conducted via helicopter in January, 1994. In addition to visual observation of the area, various maps and historical aerial photographs were reviewed, including USGS 7.5 minute topographic quadrangle maps, Landiscor high-altitude aerial photographs, U.S. Soil Conservation Service historic aerial photographs, and 1994 low-altitude aerial photographs of specific locations taken during the helicopter aerial overflight.

Twenty-eight sites were identified in the lower San Jacinto River area that warranted further screening. A general location map of the study area is depicted in Figure 1. Appendix A contains portions of 7.5 minute topographic quadrangle maps showing the specific locations of all 28 sites initially considered.

VI. <u>Initial Screening of 28 Identified Sites</u>

The 28 sites identified initially are indicated on portions of 7.5 minute USGS topographic quadrangle maps in Appendix A. They were given names referencing their location or identifying features, as follows:

Boaz Island
Plantation House
Tabbs Bay/Exxon
Spoil Islands
Spilmans Island
Bayland Park
Brownwood
San Jacinto Monument
San Jacinto Battlefield
San Jacinto Inn
Baytown Boat Club
Tugboat Annie's
Bird Lake
Wallisville Road

Rio Villa Park
Highland Shores
Highlands
Van Road
Barrett I
Barrett II
Old U.S. 90 Park
Site Adjacent to French Ltd.
Garrett Road/Specialty Sand
North Pasture/Specialty Sand
Little Eddy
South of Baker Lake
Baker Lake
Big Eddy

Fifteen sites were eliminated in the initial site screening, leaving 13 sites for further consideration. Sites eliminated include:

Boaz Island
Plantation House
Tabbs Bay/Exxon
Spilmans Island
Bayland Park

Highlands Van Road Old U.S. 90 Park South of Baker Lake Baker Lake



San Jacinto Inn Baytown Boat Club Tugboat Annie's Bird Lake Big Eddy

Table 2 indicates reasons for eliminating these 15 sites.

Seven sites were eliminated primarily because they already include a high quality wetlands with little need of expansion or improvement. These sites include the Plantation House site, Baytown Boat Club, the Bird Lake site, the Van Road site, the site South of Baker Lake, the Baker Lake site, and the Big Eddy site.

Creation of wetlands at three of the sites would have involved the sacrifice of quality upland habitat, mainly pine/hardwood forest which supports valuable wildlife resources. These include Tugboat Annie's site, the Highlands site, and the Old U.S. 90 Park site.

The Boaz Island and Spilmans Island sites were virtually inaccessible, both for construction and public usage purposes. In addition, Spilmans Island currently has ongoing dredged spoil activity.

The Tabbs Bay/Exxon site (Evergreen Point on the U.S. topographic quadrangle map) is subject to very high wave stress. It is limited in size by nearby development and would have required substantive excavation to create new wetlands acreage.

Both the Bayland Park and San Jacinto Inn sites appeared to have been significantly built up through dredged spoil deposition. The deposition alone is a negative factor, and that factor combined with high elevations requiring signficant excavation caused these two sites to be eliminated.

A meeting was held with the Project Review Group on January 27, 1994 to discuss the 28 sites, the evaluation criteria and the elimination of 15 of the sites. Table 3 describes comments received by the Group at that meeting.

In general, the Project Review Group agreed with the Site Selection criteria put forward and with the elimination of 15 of the 28 originally identified sites.

VII. Screening of 13 Sites

Thirteen sites remained under consideration after the first review, including:

Table 2

<u>Initial Screening -</u> Reasons for Eliminating 17 Sites

Site Name	Reasons for Elimination
Boaz Island	Highly inaccessible either by public or for construction purposes; minimal expansion or enhancement possibilities
Plantation House	Existing wetlands of very high quality; minimal expansion or enhancement opportunity
Tabbs Bay/Exxon	Very high wave stress; Very steep banks would require substantial excavation to create new wetlands; near subdivision
Spilmans Island	Inaccessible; ongoing spoil deposition
Bayland Park	Looks intentionally built up; significant excavation required; very limited possibilities
San Jacinto Inn	Steep banks; high elevation above MSL would require significant excavation; possible dredged spoil site for future ship channel expansion
Baytown Boat Club	Existing very high quality wetland with very little expansion possibility
Tugboat Annie's	Poor buffer; significant excavation required; existing mixed pine-hardwood habitat would be destroyed
Bird Lake Site	Existing high quality wetland; expansion and enhancement possibilities limited; very inaccessible

<u>Initial Screening -</u> Reasons for Eliminating 17 Sites

Site Name	Reasons for Elimination
Highlands	Would require destruction of existing mixed pine /hardwood habitat; significant excavation required
Van Road	Existing very high quality wetlands not in need of enhancement; not much room to expand
Old U.S. 90 Park	Existing pine/hardwood forest would be destroyed; significant excavation required
South of Baker Lake	Existing very high quality freshwater wetlands; already some enhancement performed; not in need of additional treatment
Baker Lake	Existing high quality freshwater forested wetland; expansion would require significant excavation; not tidally connected to San Jacinto River; not in need of additional treatment; would destroy existing pine forest habitat
Big Eddy	Existing high quality cypress lake; only feasible to expand in northern end; noted significant vandalism in existing lakeside park causing concern regarding future maintenance of the site; not in signficant need of additional treatment from technical standpoint

Table 3

Comments of Project Review Group on Initial Site Screening

<u>Agency</u>	Comment
NOAA/National Marine Fisheries Service	Believes that the Houston Port Authority has specific plans for the Spoil Islands site; feels that a great deal of "buffer" acreage would need to be acquired if the Highlands Shores Site were utilized to ensure that existing wetlands are not degraded; expressed concerns regarding water quality at the Barrett I site if wetlands were constructed downstream of sewage treatment plant discharge; suggested that the San Jacinto Monument Site and the San Jacinto Battlefield Site could be used in concert with one another; expressed that this agency would favor selection of a brackish site and preferred that the site selected be south of the French Limited site (understanding that the site cannot be too distant from French Limited); expressed concern that the Wallisville Site may not have enough non-wetlands area available to provide needed additional acreage; is concerned with controlling public access to whichever site is selected; multiple sites would be acceptable but would prefer larger site; if restoration is selected as the option would need to demonstrate that an old wetland had been destroyed.
TNRCC	Current concern is to move toward site acquisition to meet the deadline established in the Consent Decree; believes that the goal of the Decree is the creation of new wetlands rather than the enhancement or restoration of old wetlands; a larger number of acres would be required to fulfill the Decree if enhancement were selected; TNRCC would have a large interest in the development of a wetland that would function as additional treatment and improve water quality and initially favored the Barrett I site for this reason; the site selected should have nutrient input to and from the San Jacinto River System; prefer sites where current high quality habitat is not destroyed.

Table 3 (Continued)

Comments of Project Review Group on Initial Site Screening

Agency	Comment
GLO	Multiple sites would be acceptable, but larger sites are better than smaller sites; expressed concern that existing valuable upland habitat not be destroyed to create the new wetland; long term success of the new wetland will depend on surrounding land use and a buffer around the site.
TPWD	Feels the Consent Decree requires that the wetlands project be "hydrologically connected to the San Jacinto River"; isolated freshwater sites that could not be connected to the river should be abandoned; public should have access to the site; Little Eddy or Rio Villa Park are less desirable if the public could not access these locations; prefer sites where existing high quality habitat is not destroyed.
USFWS	If enhancement selected as option, more acres will need to be treated; one large site was preferable to several smaller sites; wetland and public can coexist; public must not be able to "impact" the site; loss of good habitat such as bottomland hardwood or quality upland for the wetlands would not be favorable.
General Comments:	Large site is better than several small sites; creation is better than enhancement and restoration; site should be "tidally linked" to the San Jacinto River; high levels of crime and vandalism should be viewed negatively in the selection process; criteria presented are appropriate; public access to the site should be considered favorably but the public should not be able to have a negative impact on the site; San Jacinto Monument Site is a good choice for access by the public and is also available to citizens of Crosby and Barrett Station; negative impact on existing high quality habitat is undesirable.

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Spoil Islands
San Jacinto Monument
San Jacinto Battlefield
Brownwood
Wallisville Road
Rio Villa Park
Bighland Shores

Barrett I
Barrett II
Garrett Road/Specialty Sand
North Pasture/Specialty Sand
Little Eddy
Site Adjacent to French Ltd.

Appendix B contains additional detail regarding characteristics of each of the 13 sites. January, 1994 low-altitude aerial photos of each site are included.

The project team committed to reducing the list to four sites before meeting with the Project Review Group again on February 17, 1994. The February 17 meeting was scheduled for the Project Review Group to visually inspect the best sites.

Nine sites were eliminated, leaving four sites for final consideration. Sites eliminated include:

Spoil Islands
San Jacinto Battlefield
Rio Villa Park
Highland Shores
Barrett II

Garrett Road/Specialty Sand North Pasture/Specialty Sand Little Eddy Site Adjacent to French Ltd.

Table 4 lists reasons these sites were eliminated. Five of the nine sites were considered not tidally "linked" to the San Jacinto River. As a result of the Project Review Group's concerns that these isolated freshwater wetlands may not technically meet the Consent Decree, they were no longer viable sites. These include Barrett II, Garrett Road/Specialty Sand, North Pasture/Specialty Sand, Little Eddy, and the Site Adjacent to French Limited.

After further consideration, two of the sites (Rio Villa Park and Highland Shores) were deemed to already have wetlands of such quality that they were not judged to be as in need of treatment as several of the other sites.

The San Jacinto Battlefield Site was eliminated primarily because of concerns that the significant amount of excavation required to generate additional wetlands at this location would be likely to disturb or destroy valuable historic resources from the Battle of San Jacinto.

The public would have virtually no access to the Spoil Islands. That factor, coupled with difficult construction and high wave stress, caused this site to be eliminated in favor of others.

Table 4

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Reasons for Eliminating Nine of 13 Remaining Sites

Site Name	Reasons for Elimination		
Spoil Islands	High wave stress; no public access; difficult construction access; farthest site from French Limited.		
San Jacinto Battlefield	Poor buffer; surrounding land use heavy industry; possible to disturb significant historic resources through excavation; high excavation and disposal cost.		
Rio Villa Park	Existing wetland already high quality; limited public access probably only benefiting Rio Villa residents; significant excavation required; significant disposal cost.		
Highland Shores	Existing wetland already high quality; only moderate access to public; moderate number of visitors expected; not one of the sites severely in need of treatment.		
Barrett II	Is an isolated freshwater wetland; not "linked" to the San Jacinto River; poor public access; low number of visitors expected; aesthetics impacted by nearby sand pits; would destroy existing pine forest.		
Garrett Road/Specialty Sand	Is an isolated freshwater wetland; not "linked" to the San Jacinto River; surrounded by commercial sand pits; very poor public access; very limited public benefits; potentially high disposal cost.		

Reasons for Eliminating Nine of 13 Remaining Sites

Site Name	Reasons for Elimination		
North Pasture/Specialty Sand	Would be an isolated freshwater wetland; not "linked" to the San Jacinto River, surrounded by commercial sand pits; very poor public access; low potential for community benefits; significant excavation and disposal cost.		
Little Eddy	Is an isolated freshwater wetland; not "linked" to the San Jacinto River (although could be made to be connected to river); steep elevational grades requiring significant excavation; potentially high disposal cost; would destroy existing pine forest.		
Site Adjacent to French Ltd.	Is an isolated freshwater wetland; not "linked" to the San Jacinto River; poor aesthetics; moderate number of visitors expected; significant excavation and disposal; poorly buffered; would destroy pine forest; significant subsidence potential.		

VIII. Consideration of the Final Four Sites

The four sites remaining included:

San Jacinto Monument Brownwood Barrett I
Wallisville Road

Table 5 lists the site selection criteria developed for each of these four sites.

A. Additional Research on the Four Candidate Sites

Additional background research was conducted on each of the four candidate sites. This included review of 1993 tax records in order to establish property ownership and review of historic aerial photographs of each site in order to determine past site conditions. Appendix C contains aerial photos of each site dating from 1953.

A preliminary conceptual design for each site was commissioned from local landscape architects. This was done in order to allow CES, FLTG, and the Project Review Group to visualize how the wetlands creation/restoration could be accomplished at each site. These conceptual designs depicted on January, 1994 aerial photos of the sites are also included in Appendix C.

1. Wallisville Road Site

Research of the tax records showed complicated ownership issues for the Wallisville Road Site. This location was developed into a subdivision prior to undergoing significant subsidence and land loss over the last 25 years. As a result, multiple owners have lots within that subdivision that are submerged.

Aerial photos from 1953 show the Wallisville Road Site to be much larger than at present. It appears to have been a very large, probably high quality wetland site. If this site were selected, the response option would clearly be restoration of a destroyed or degraded wetland.

Conceptual design for the Wallisville site involved recreating freshwater wetlands lost to subsidence. Shoreline stabilization would need to be provided to protect the area from boat wakes. A dam or weir would be constructed across the opening of the site to prevent saltwater intrusion. Significant fill material would be imported and graded to create elevations capable of supporting emergent freshwater vegetation. There is easy access to the area via Wallisville Road, and observation platforms could be constructed so that the public could view the area.

Environmental/Technical Criteria:

Wallisville Road Site	Barrett I Site	Brownwood Site	San Jacinto Monument Site
Restoration and enhancement of existing wetlands	Enhance/expand freshwater wetlands	Create/enhance both freshwater and estuarine wetlands	Restoration and enhancement of existing wetlands
Moderate wave stress - wave barrier construction required	Low to no wave stress - some shoreline stabilization required	Internal area under consideration not subject to wave stress at this time.	High wave stress - significant shoreline stabilization required
Good buffer	Moderate buffer	Good buffer now.	Excellent buffer
Design contemplates restoration of a freshwater wetland (Manipulation of hydrology required)	Requires significant manipulation of hydrologic system	Existing hydrologic system adaptable to wetlands creation	Existing hydrologic system easily adaptable to wetlands restoration and enhancement
Compatible surrounding land use	Compatible with surrounding land use	Highly compatible with planned land use	Very compatible land use

Site Selection Criteria for the Final Four Sites

Environmental/Technical Criteria (Cont.):

Wallisville Road Site	Barrett I Site	Brownwood Site	San Jacinto Monument Site
Large Site	Large site	Large site	Large site (approximately 300 acres could be beneficially impacted
Expected subsidence = 1.5 feet by year 2030 (best case)	Projected subsidence = 1.5 feet by year 2030 (best case)	Projected subsidence 0.3 feet by year 2030 (best case)	Projected subsidence 0.3 feet by year 2030 (best case)
Susceptibility to natural disasters relatively low (hurricanes)	Susceptibility to natural disasters (hurricanes) low	Potentially susceptibility to hurricane damage	Moderate susceptibility to hurricane damage
Past site use is wetlands	Past site uses include lumber and commercial sand excavation	Past site use was as a residential neighborhood with typical residential infrastructure	Past site uses include wetlands/dredged spoil disposal/state park
	Surrounded by mixed, high quality pine/hardwood forest with existing wildlife benefits	Would not have a negative impact on existing habitat	Existing excellent diversity of wetland habitat types

Environmental/Technical Criteria (Cont.):

Wallisville Road Site	Barrett I Site	Brownwood Site	San Jacinto Monument Site
	Some beneficial polishing of wastewater treatment effluent possible		
	Significant elevational differences	Level, low-lying area.	

Sociological Criteria:

Wallisville Road Site	Barrett I Site	Brownwood Site	San Jacinto Monument Site
Moderate public access	Easy public access for Barrett Station	Good access	Excellent public access

Sociological Criteria (Cont.):

Wallisville Road Site	Barrett I Site	Brownwood Site	San Jacinto Monument Site
Limited community benefits	Possible to enable community access to San Jacinto River Community benefits probably limited to Barrett Station	Good educational/recreational potential	Community benefits - statewide vs. local benefit Excellent educational/recreational opportunities
Good aesthetics	Good aesthetics	Poor aesthetics currently (project would significantly enhance aesthetics)	Excellent aesthetics
Future stewardship unknown	Barrett Station probably willing to own and provide future stewardship	City of Baytown willing to own and provide stewardship	TPWD will accept and maintain in perpetuity

Sociological Criteria (Cont.):

Wallisville Road Site	Barrett I Site	Brownwood Site	San Jacinto Monument Site
Community perception - probably acceptable but impacted community is not direct beneficiary	Community acceptance/perception - beneficial to community directly impacted by French	Good local community acceptance - does not directly benefit communities impacted by French but is close-by and easily accessible for their use	Good local community acceptance as well as statewide benefits to public - does not directly benefit communities impacted by French but is easily accessible to them
Number of visitors relatively low Number of visitors relatively low	Number of visitors relatively low	Possible large number of visitors	Almost 1 million visitors per year
			Restoration may further protect historic resources

Table 5 (Continued)

Site Selection Criteria for the Final Four Sites

Political Criteria:

Wallisville Road Site	Barrett I Site	Brownwood Site	San Jacinto Monument Site
Acceptable to regulators	Acceptable to regulators	Acceptable to regulators	Acceptable to regulators
Relatively close to French Site but across river	Close proximity to French site	Moderate distance from French Site	Moderate distance and across river from French Site
Perception of community officials unknown	Good acceptance by community officials	City of Baytown community officials very favorable toward this site Perception of other community officials unknown	Potentially high acceptance from public officials statewide
			TPWD highly favors restoration of this site and will provide assistance

Economic Criteria:

Wallisville Road Site	Barrett I Site	Brownwood Site	San Jacinto Monument Site
Land cost unknown	Land cost unknown	No land cost .	No land cost.
Large number of land owners	At least two land owners	Land owned primarily by City of Baytown.	Land owned primarily by Texas Parks and Wildlife Department, State of Texas
	Potential excavation and disposal costs		Requires importing of fill material
			Significant shoreline stabilization cost

Table 5 (Continued)

Site Selection Criteria for the Final Four Sites

Risk Criteria:

Wallisville Road Site	Barrett I Site	Brownwood Site	San Jacinto Monument Site
Moderately high risk due to required manipulation of hydrology and restoration of freshwater wetland	Moderately high risk based on required manipulation of hydrology and creation of freshwater wetland	Development of site represents relatively low risk	Restoration/creation of new estuarine wetland represents low risk
Projected Subsidence is 1.5 feet by the year 2030	Projected Subsidence is 1.5 feet by the year 2030	Projected Subsidence is 0.3 feet by the year 2030	Projected Subsidence is 0.3 feet by the year 2030
		Qualified city personnel available for future site management	Qualified state personnel available for future site management

2. Barrett I Site

Review of tax records indicated that the Barrett I site area probably has only two owners (the area is very large and the actual site ownership would depend on which acres were acquired). Photos from 1953 show it to be forested upland with two small lakes. Water bodies shown on 1994 aerial photos are probably a result of both subsidence and commercial sand excavation.

The conceptual design for this site shows that wetlands could be created by significant grading of fairly steep shoreline areas within old sand pits. Some high quality pine forest would be destroyed to create the wetlands. Islands of forest would be left within the wetlands area. Parking and a boat ramp could be provided for visitors. Aesthetics would be impacted by the Highway 90 overpass. Access would be by unimproved road through private property west of Barrett Station. This road would require significant improvement or would only provide access for visitors with four-wheel drive vehicles.

A second option was also conceptualized for the Barrett Station area. This option involves grading of land downstream of the Barrett Station wastewater treatment facility. Marsh would be created on this site to provide additional treatment of wastewater effluents. This option would not provide recreational opportunities for visitors but would have educational value.

3. Brownwood

The Brownwood Site is owned primarily by the City of Baytown, with some private ownership of a few pieces of property still remaining. Photos from 1953 demonstrate the significant land loss experienced in this area over the past 40 years. The area was at one time a substantial waterfront subdivision. It was abandoned in 1983 as a result of consistent flooding caused by subsidence due to groundwater withdrawal. A significant amount of the area now consists of standing water.

The preliminary conceptual design developed for Brownwood shows that a substantive improvement can be made on this site by constructing the wetlands. Removal of some of the existing infrastructural debris would add greatly to its aesthetic appeal. Inlets can be created to allow infusion of brackish water. Grading and contouring of the site would create large zones of emergent vegetation. Existing large trees could be left as islands throughout the site and would provide nesting and resting habitat for birds. The design includes observation platforms and observation trails.

The City of Baytown plans to develop Brownwood into a park and recreational site. They welcome the wetlands project and feel that it fits very well into their long-range plans for the area.

4. San Jacinto Monument Site

With the exception of approximately 25 acres owned by private entities, the San Jacinto Monument Site is owned by the State of Texas and managed by Texas Parks and Wildlife Department as part of the San Jacinto State Park. TPWD feels that this important site is in dire need of restoration or it may be entirely lost due to significant shoreline erosion caused by large vessels traveling up and down the Houston Ship Channel. This location was historically important in the Battle of San Jacinto and supports a great deal of wildlife (especially migratory ducks and other shore birds).

Historic aerial photos of the San Jacinto Monument Site dating back to 1953 show that the area was being utilized for dredged spoil deposition at that time. This land has since been lost to subsidence. The shoreline elevation bordering the Houston Ship Channel is very low, allowing wakes from ships to wash over the shoreline and erode it away.

Conceptual design included stabilization of the entire shoreline. Without taking this step, any wetland created could subsequently be lost. This stabilization would also protect and allow the rebuilding of hundreds of acres of existing wetlands. In addition, an old levee along Santa Anna Bayou needs to be raised and reinforced to protect the existing wetlands and the new wetlands.

Preliminary design called for the creation of new marsh in the open water area at the northwest end of the site. Salinity would be controlled by constructing two connections to the Ship Channel and bay. Nature trails and observation platforms would be provided for the nearly 1 million visitors to the park every year.

B. Project Review Group Site Visits

On February 17, 1994 CES presented the final four candidate sites to the Project Review Group. The Group was briefed on the screening process and shown the preliminary conceptual designs for each of the four remaining sites. A visit was then made to each site.

In general, the Project Review Group felt that any of the four sites would meet the objectives of the Consent Decree.

Concern was expressed about the Barrett Station location. This concern primarily involved the large elevational change that would be required to create wetlands at the site. In addition, existing quality upland habitat would be destroyed. Concerns expressed about the Wallisville Site included the complications of ownership of submerged land by private individuals, and the risk involved with creating/restoring a freshwater wetland. The Group felt that of the four sites, the two best sites were Brownwood and the San Jacinto Monument Site. No one expressed a preference between these two sites.

C. Elimination of Two of the Four Remaining Sites

In order to comply with the Consent Order, FLTG was required to select a site by March 10, 1994. Two of the four sites (Wallisville Road and Barrett I) were eliminated in the next screening phase. Table 6 lists reasons for eliminating these two sites.

The most compelling reason for eliminating these sites is projected subsidence. Figure 2, obtained from the local subsidence district, depicts best case subsidence for Harris County up to the year 2030. Subsidence in the northern part of the study area is projected to be in excess of a foot. Subsidence in the southern part of the study area, where Brownwood and the San Jacinto Monument sites are located, is projected to be 0.3 feet. Subsidence in excess of 6 inches could dramatically change and probably destroy the newly created wetlands area. This fact was heavily weighted in the final screening and favored the Brownwood and San Jacinto Monument sites, where groundwater withdrawal and thus subsidence have already been brought under strict control.

Both Barrett I and the Wallisville Road sites would be freshwater wetlands. Brownwood and the San Jacinto Monument sites support brackish wetlands, the most successful and easily sustainable type of wetlands that can be created.

Public use of the Wallisville and Barrett sites would probably be much lower than use of the other two sites. The San Jacinto Monument site already attracts nearly 1 million visitors per year. Baytown's plans for Brownwood are likely to generate significant visitation from citizens throughout eastern Harris County (and for bird-watchers throughout the entire state). Both sites are very easily accessible for residents most directly impacted by the French Limited site.

D. Further Evaluation of the Brownwood and San Jacinto Monument Sites

Table 7 lists screening characteristics for the two final sites. Additional information was generated for these two

Table 6

Reasons for Eliminating Two of the Final Four Remaining Sites

Wallisville Site	Barrett I Site
Moderately high risk due to required manipulation of hydrololgy and restoration of a freshwater wetland; wetlands not as easily sustainable as brackish wetlands that could be created at the other two sites	Significant excavation and grading required to lower site elevations for creation of new wetlands; significant manipulation of hydrology would be required so that a freshwater wetland could be supported; not as easily sustainable as the other two sites
Projected subsidence is 1.5 feet by the year 2030	Projected subsidence is 1.5 feet by the year 2030
Large number of landowners makes site acquisition complicated	Quality pine/hardwood uplands would be lost to generate new wetlands
Would probably attract a relatively low number of visitors compared to the other two sites	Would probably attract a relatively low number of visitors compared to the other two sites
Public access to the site is not as good as the other two sites	Public access to the site is not as good as the other two sites; recreational benefits probably limited to Barrett Station and immediate surrounding communities
Preliminary conceptual design contemplates construction of a wave barrier to prevent boat wakes from damaging the new wetland	
Future stewardship of the site is unknown	

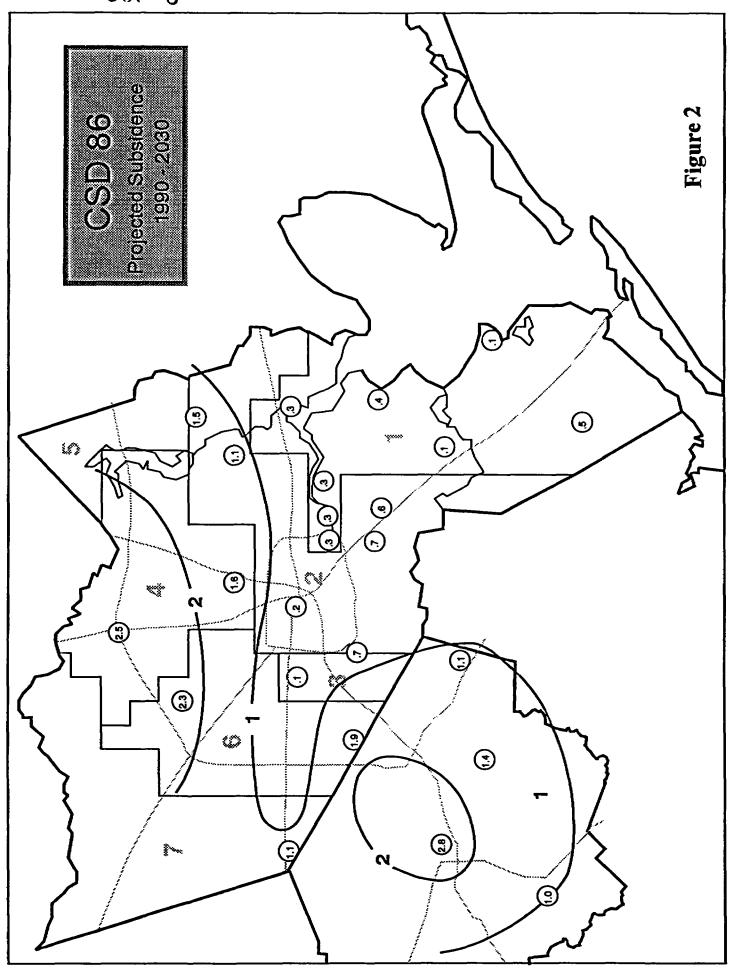


Table 7

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Comparison of Brownwood and San Jacinto Monument Sites

Environmental/Technical Criteria:

Brownwood Site	San Jacinto Monument Site	
Create/enhance both freshwater and estuarine wetlands	Restoration and enhancement of existing wetlands	
Internal area under consideration not subject to wave stress at this time.	High wave stress - significant shoreline stabilization required	
Good buffer now - future buffer dependent on remainder of park development	Excellent buffer	
Existing hydrologic system adaptable to wetlands creation	Existing hydrologic system easily adaptable to wetlands restoration and enhancement	
Highly compatible with planned land use	Very compatible land use	
Large site Large site (approximately 300 acres could be beneficing impacted		
Projected subsidence 0.3 feet by year 2030 (best case)	Projected subsidence 0.3 feet by year 2030 (best case)	
Susceptibility to hurricane damage	Moderate susceptibility to hurricane damage	
Past site use was as a residential neighborhood with typical residential infrastructure	Past site uses include wetlands/dredged spoil disposal/state park	
Can create diverse wetland habitat types	Existing excellent diversity of wetland habitat types	

Table 7 (Continued)

Comparison of Brownwood and San Jacinto Monument Sites

Sociological Criteria:

Brownwood Site	San Jacinto Monument Site	
Good access	Excellent public access	
Good educational/recreational potential	Community benefits - statewide vs. local benefit; Excellent educational/recreational opportunities	
Poor aesthetics currently (project would significantly enhance aesthetics)	Excellent aesthetics	
City of Baytown willing to own and provide stewardship	TPWD will accept and maintain in perpetuity	
Good local community acceptance - does not directly benefit communities impacted by French	Good local community acceptance as well as statewide benefits to public - does not directly benefit communities impacted by French	
Possible large number of visitors	Almost 1 million visitors per year	
	Restoration may further protect historic resources	

Table 7 (Continued)

Comparison of Brownwood and San Jacinto Monument Sites

Political Criteria:

Brownwood Site	San Jacinto Monument Site	
Acceptable to regulators	Acceptable to regulators	
Moderate distance from French Site	Moderate distance and across river from French Site	
City of Baytown community officials very favorable toward this site	Potentially high acceptance from public officials statewide	
	TPWD highly favors restoration of this site and will provide assistance	

Economic Criteria:

No land cost	No land cost
Land owned primarily by City of Baytown.	Land owned primarily by Texas Parks and Wildlife Department, State of Texas
Fill available on site	Requires importing of fill material
Cost issues: Site preparation; shoreline stabilization	Cost issues: Significant shoreline stabilization cost

Table 7 (Continued)

Comparison of Brownwood and San Jacinto Monument Sites

Risk Criteria:

Development of site represents relatively low risk	Restoration/creation of new estuarine wetland represents low risk	
Projected Subsidence is 0.3 feet by the year 2030	Projected Subsidence is 0.3 feet by the year 2030	
	Qualified state personnel available for future management	

sites, including an archaeological survey to determine if the project would be likely to disturb or destroy any signficant historic resources, and a hydrological study to determine if any unknown technical factors existed that would eliminate one of the two sites.

Appendix D contains the cultural resource report prepared for both sites. Appendix E contains the hydrology evaluations.

Both sites contain prehistoric and historic archaeological material and will require further investigation and possibly mitigation for cultural resources. The hydrologic investigation indicated that the wetlands could be sustained at either site. No data were generated in sampling activities that raised concerns regarding either site.

A preliminary construction cost estimate was prepared for each of the two sites based on implementation of the preliminary conceptual designs. The shoreline stabilization cost and reconstruction and reinforcement of the levee along Santa Anna Bayou were found to be expensive. Without performing these two initial steps (which do not involve the actual creation of any new wetlands), constructing the project at the San Jacinto Monument Site simply would not make sense because the entire area could eventually be lost to shoreline erosion. A high percentage of any budget for wetlands development at the Monument site would be devoted to these two elements rather than to the creation of new and beneficial wetland habitat.

While some shoreline stabilization is shown on the preliminary design for the Brownwood Site, it was found that sufficient acreage exists inside of the road looping the site to build the project. As a result, the existing shoreline would serve as a wave barrier and would provide sufficient protection for the new wetland. Because of this, more of the construction budget could be devoted to the creation of valuable wetland habitat at Brownwood rather than being devoted to construction of physical structures required to control natural forces.

IX. Final Site Recommendation and Justification

The Brownwood site is recommended for the following reasons:

- The internal area of Brownwood is not subject to wave stress at this time;
- Wetlands creation at this location is extremely compatible with planned land use;

- Wetlands creation at this location will not adversely impact high quality habitat;
- The existing hydrologic system is easily adaptable to sustain a wetlands area;
- A diversity of wetland types can be created at this site, including brackish marsh and seasonal freshwater pools;
- Large trees left standing on "islands" within the wetlands area will increase habitat diversity and provide excellent nesting and resting areas for birds;
- The project will greatly enhance an area that is currently in need of treatment;
- The site is centrally located and easily accessible to the public so that citizens from all over East Harris County can enjoy it as well as other citizens from a broader area;
- Qualified personnel are available to maintain the wetlands area;
- Extensive shoreline stabilization is not required;
- The site can be graded to create necessary elevations for emergent vegetation;
- This site represents the lowest risk of any site evaluated -- it is clearly capable of supporting a high-quality and sustainable wetland.

Figure 3 depicts a revised preliminary conceptual design for the wetlands project at the Brownwood Site. While preliminary, this design shows that the project can be developed in accordance with the criteria of the Consent Decree utilizing land that City of Baytown has agreed to make available to FLTG. This property is within the loop road inside Brownwood, protected from wave stress. Figure 4 presents sections further illustrating the conceptual design.

Analysis of this design indicates that the entire project would develop 59.8 acres as follows:

Marsh Grass Zone Open Brackish Water Upland Edge Woodland Fresh Water Pools	16.8 8.0 13.4	acres acres acres acres acres
TOTAL		acres

Figure 3



DETAIL TYPICAL SECTION



OVERALL TYPICAL SECTION

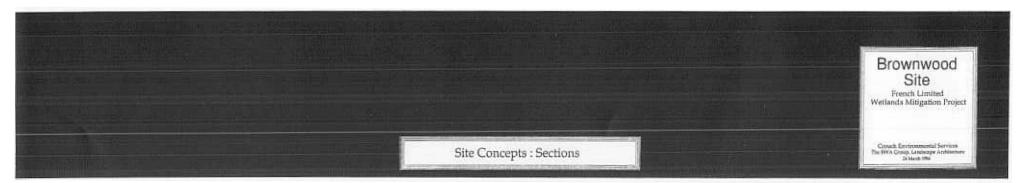


Figure 4

X. Presentation to Project Review Group

On March 25, 1994 CES and FLTG presented the analysis of the final two sites and the site selection recommendation to the Project Review Group. FLTG previously notified the Group if its selection in accordance with the Consent Decree deadline. The Group unanimously approved selection of the Brownwood Site.

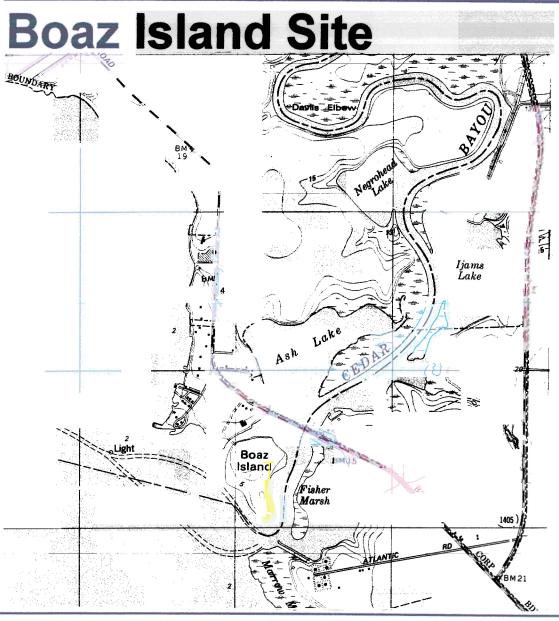
The Consent Decree allows nine months to develop a detailed design for the project. This design, or "marsh restoration plan" is due on December 10, 1994. The Project Review Group must approve the plan. The Group provided valuable feedback regarding elements of the design for Brownwood that will be incorporated into the plan.

BOOKMARK

Appendix A

28 Sites Shown on Topographic Maps

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Highly inaccessible

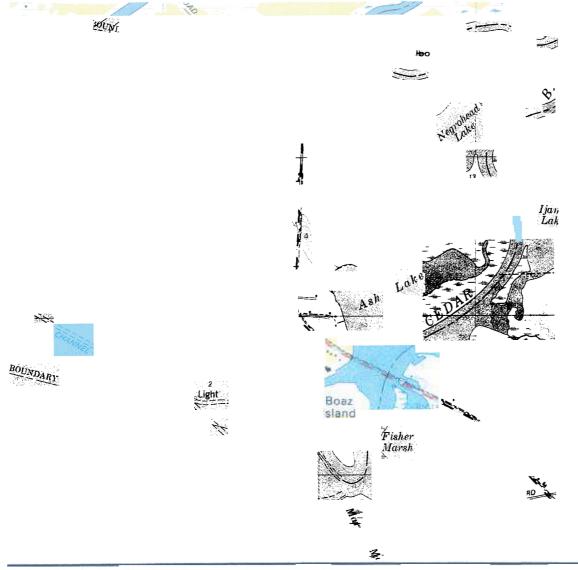
Residence on island serviced by private bridge

Existing wetland area on-site

 Minimal expansion or enhancement possibilities

French Limited Wetlands Mitigation

Plantation House Site



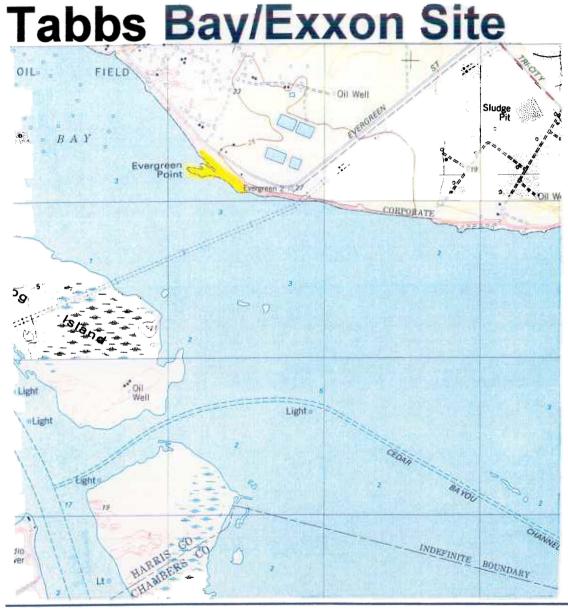
Characteristics:

Existing high quality wetland

Grades from tidal marsh to upland

Near residences

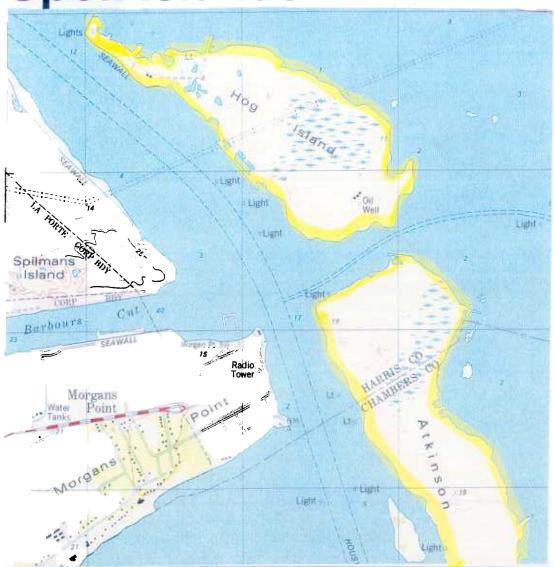
Minimal expansion or enhancement opportunity



- USFWS wants edge cleaned up and enhanced
- Steep banks lots of excavation to create additional wetland acreage
- Good access
- High wave stress
- · Near subdivision
- Many working wells in bay

French Limited Wetlands Mitigation

Spoil Islands

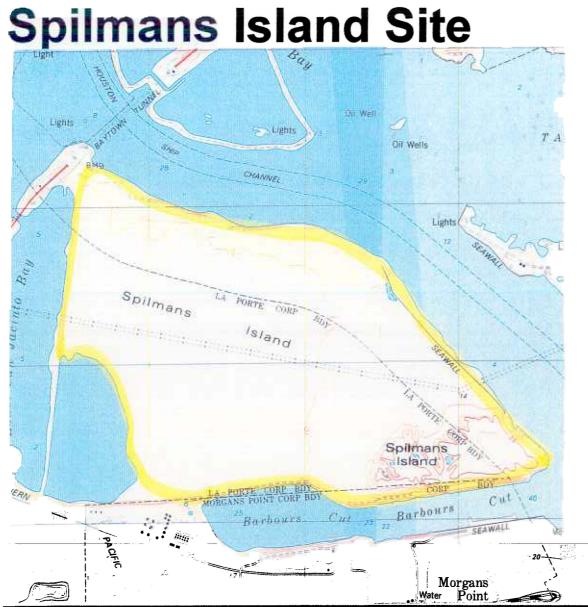


Characteristics:

No public access

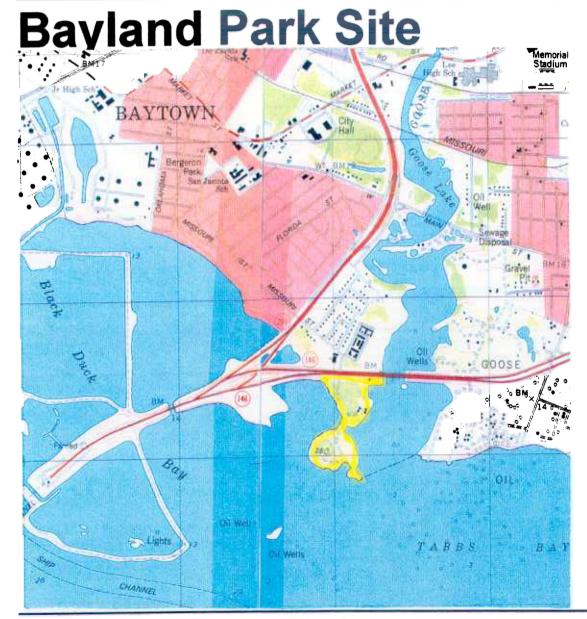
- High wave stress
- Difficult access for construction equipment
- Built through dredged spoil deposition
- Easily enhanced
- Large amount of acreage available

French Limited Wetlands Mitigation



- Apparent ongoing spoil deposition
- Inaccessible
- Does not appear to be a suitable site

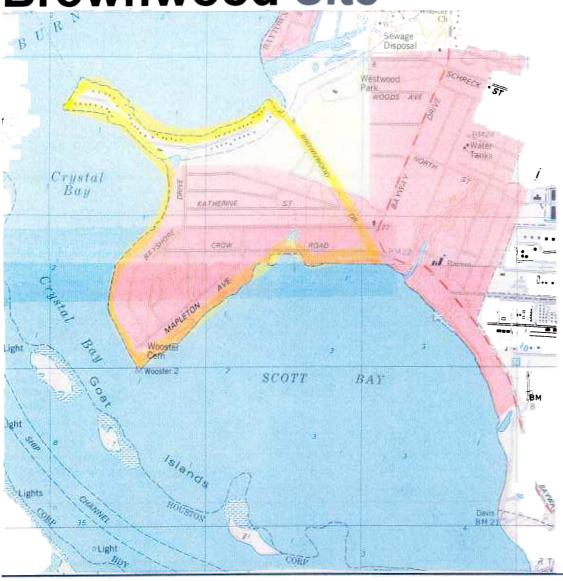
French Limited Wetlands Mitigation



- City of Baytown park
- Good Public access
- Significant excavation required
- Looks
 intentionally built
 up through
 dredged spoil
 deposition
- Very limited possibilities

French Limited Wetlands Mitigation

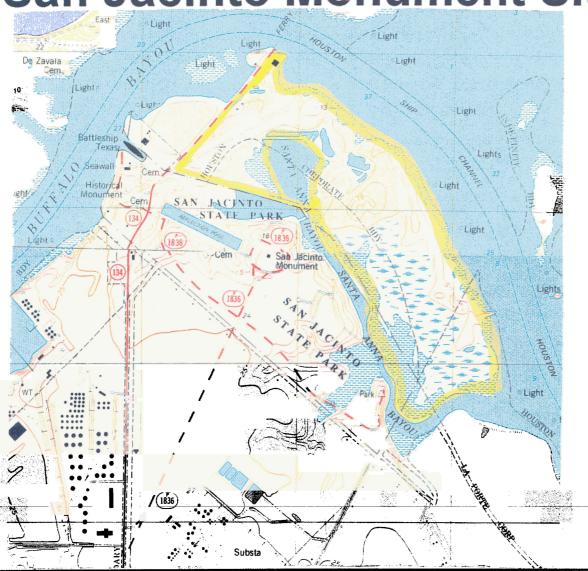
Brownwood Site



- Owned by City of Baytown - park planned
- Good access
- High wave stress/erosion potential
- Create both fresh and estuarine wetlands
- Good buffer now; poor once park is developed

French Limited Wetlands Mitigation

San Jacinto Monument Site



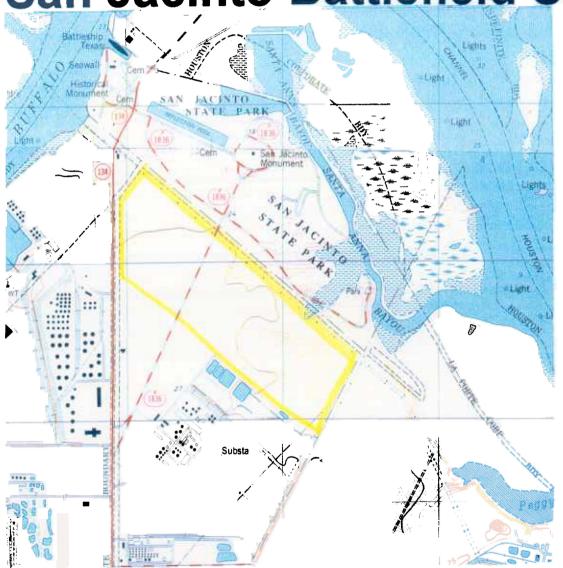
Characteristics:

State-owned

- 3 existing wetland
 - types
 - Good public access with good buffer
- TPWL wants to restore and create wetlands
- View from monument and ship channel
- Tidal influence



San Jacinto Battlefield Site



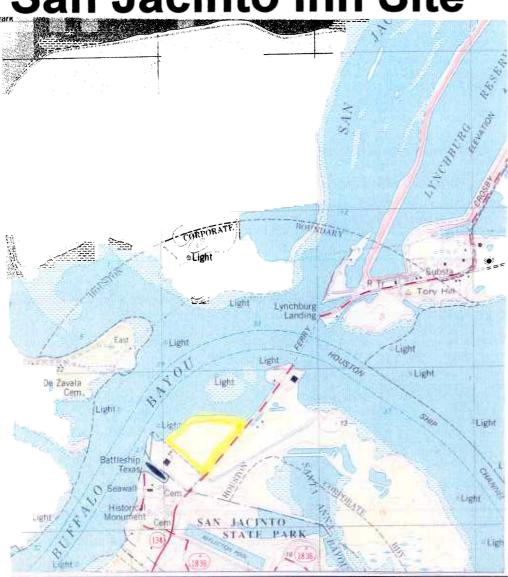
Characteristics:

State-owned

- Public Access
- Possible historic sites
- Heavily wooded with existing central wetland
- ROW interferes with aesthetics
- View from monument
- Poor buffer

French Limited Wetlands Mitigation

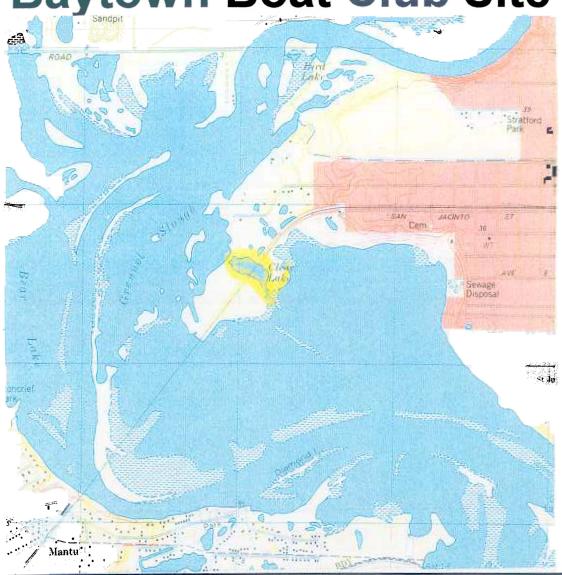
San Jacinto Inn Site



- High elevation above MSL
- Possible dredged spoil site
- View from monument
- Close to populated areas
- View of ship channel from site
- Low quality vegetation currently covers site

French Limited Wetlands Mitigation

Baytown Boat Club Site



Characteristics:

Existing quality forested wetland

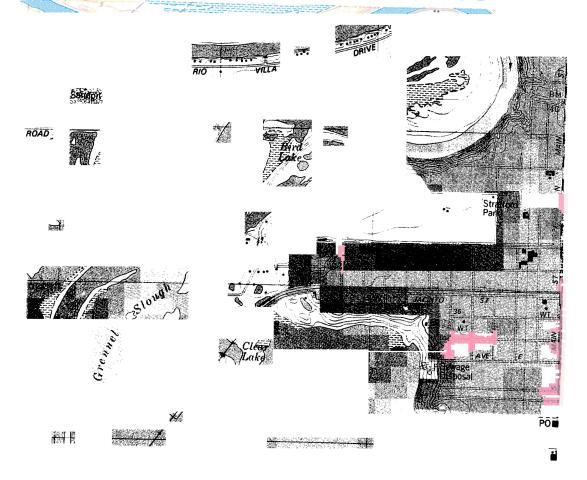
Very little expansion possibility

Immediately adjacent to subdivision

- Highly accessible
- · Poor buffer

French Limited Wetlands Mitigation

Tugboat Annie's Site



Characteristics:

• Private boat launch

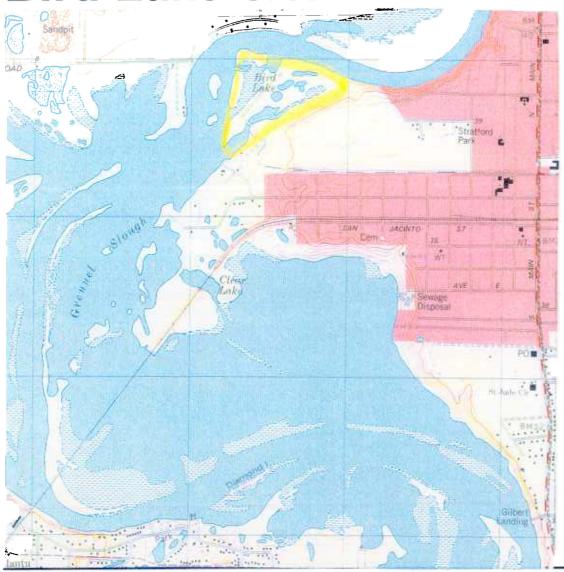
Pine/Hardwood forest down to water's edge

No existing wetlands

Significant excavation required

Very poor buffer

Bird Lake Site



- Inaccessible by vehicle
- Existing quality wetland
- Expansion and enhancement possibilities limited

French Limited Wetlands Mitigation

Wallisville Road Site WALLISVILLE 4

Characteristics:

Moderate Access

- Existing high quality wetland
- Potential enhancement to tidally influenced fresh marsh
- Close to homes
- Wave Stress

Good surrounding buffer

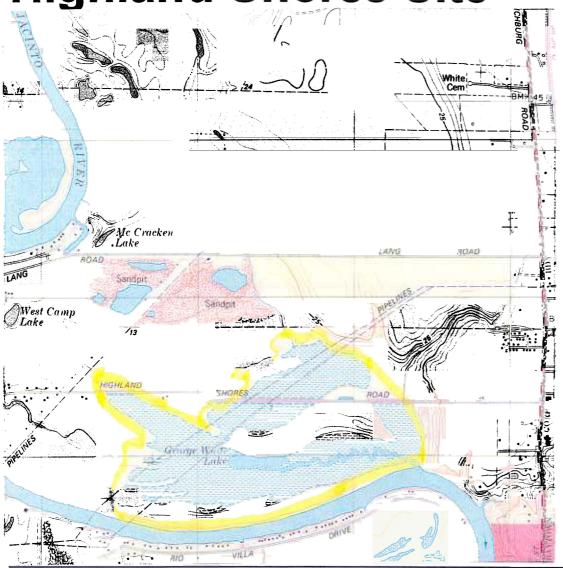
French Limited Wetlands Mitigation

Rio Villa Park 13 ORCHARD Highlands JACAVIO 38M34

- Existing high quality fresh marsh and forest
- Limited Access
- Good Buffer
- Can enhance or expand
- Significant excavation
- Close to FL Site
- · Low Wave Stress

French Limited Wetlands Mitigation

Highland Shores Site



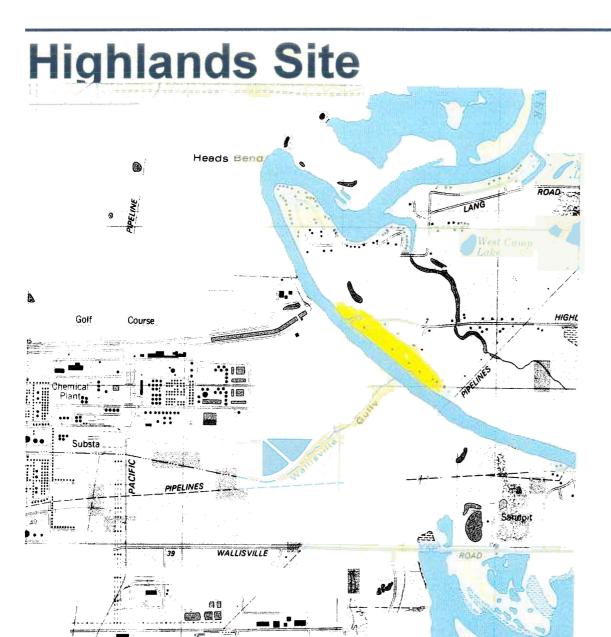
Characteristics:

- Existing high quality fresh marsh and forested wetland
- Moderate access
- Good Buffer
- Could be enhanced

Very large area

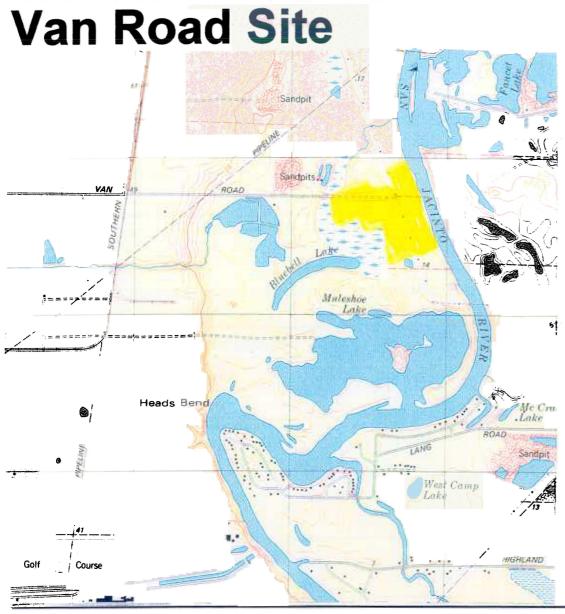
 Near Highlands, fairly close to FL Site

French Limited Wetlands Mitigation



- Mixed pinehardwood forest
 High in elevation
- Significant excavation required
- Would involve creation of entirely new wetland site using a slough from the river as the hydrological connection

French Limited Wetlands Mitigation



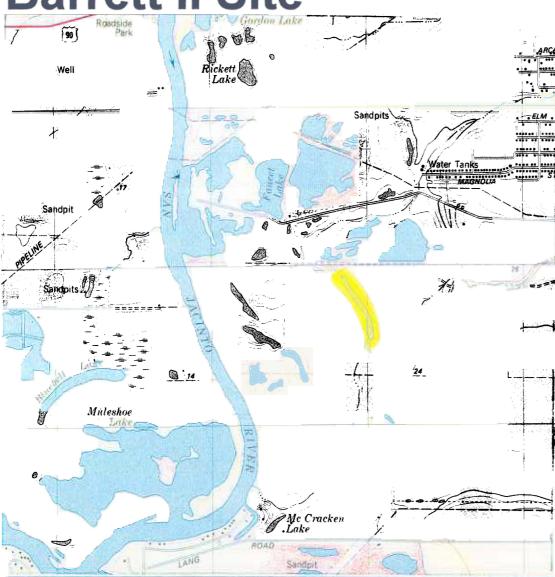
 Existing large, high quality forested wetland site

Not in need of enhancement

 Not much room to expand

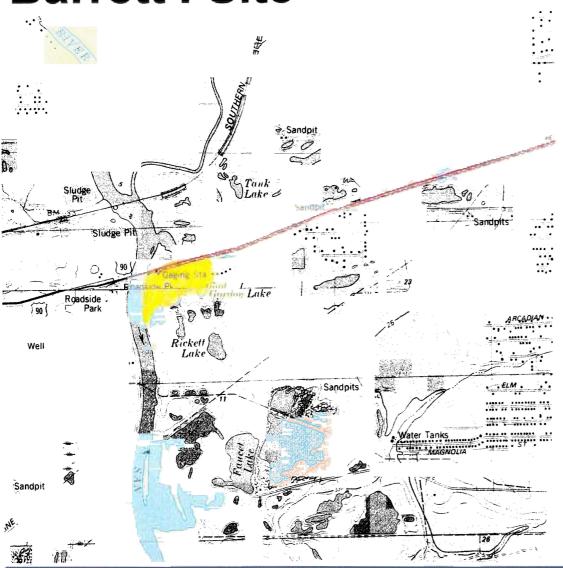
French Limited Wetlands Mitigation

Barrett II Site



- Poor access by private dirt road
- Existing fresh water wetland
- Could be expanded into adjacent pasture
- Currently well buffered
- Close to Barrett and FL Site
- Would be isolated fresh water w.l.

Barrett I Site



Characteristics:

 Accessible to community of Barrett Station

Surrounded by hardwood forest

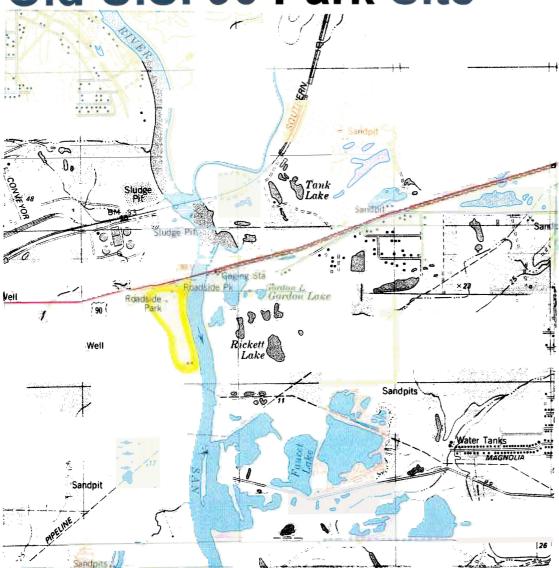
Significant excavation required

Areas that could be both enhanced and expanded

Possible to enable community access to river

French Limited Wetlands Mitigation

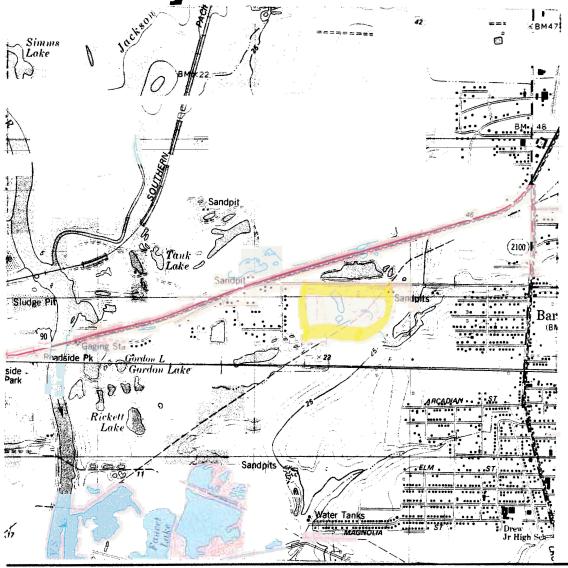
Old U.S. 90 Park Site



- Pine-Hardwood forest
- No existing wetland
- Significant excavation required
- Utilized as local dump site
- Not a promising location

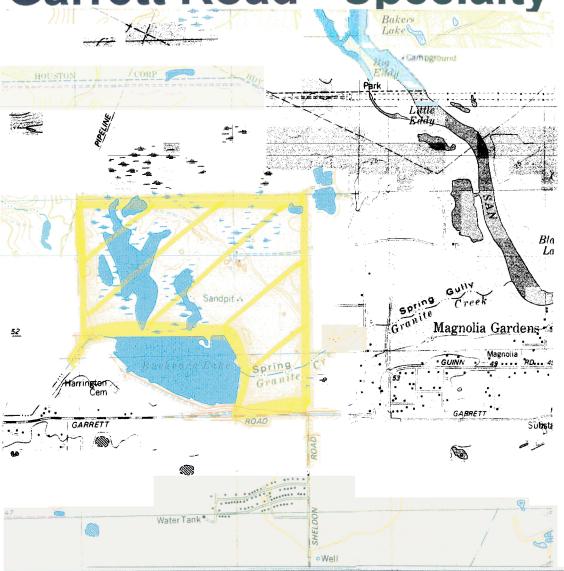
French Limited Wetlands Mitigation

Site Adjacent to French Limited



- Good access
- Existing isolated forested wetland
 - Potential to enhance or expand
- Adjacent to Superfund site
- Close to Crosby and Barrett Station
- Moderate buffer

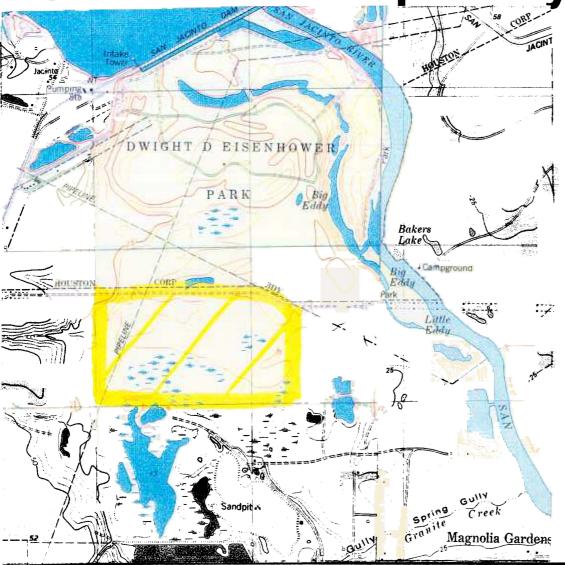
Garrett Road - Specialty Sand



- Extremely large area
- Existing fresh wetland areas could be easily expanded and/or enhanced
- Good buffer
- Inaccessible to public
- Wetlands would be isolated f.w.

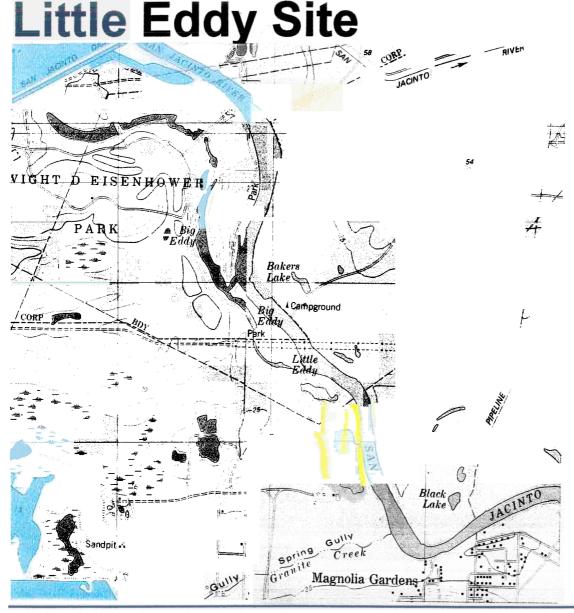
French Limited Wetlands Mitigation

North Pasture - Specialty Sand



- Accessible by dirt road
- Existing small f.w. wetlands
- Easily expanded into adjacent pasture
- Excellent buffer
- No public access
- Large area

French Limited Wetlands Mitigation

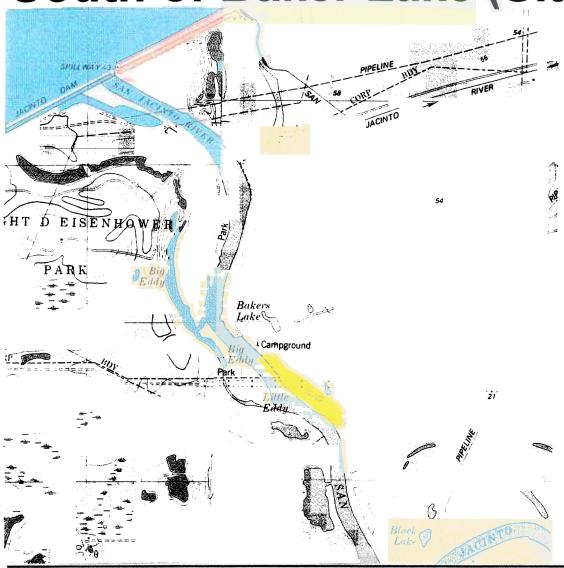


Low public access

- Steep grade from pine-hardwood to cypress lake
- Strong enhancement possibility
- Requires significant excavation
- Isolated except during river flooding

French Limited Wetlands Mitigation

South of Baker Lake (Site)

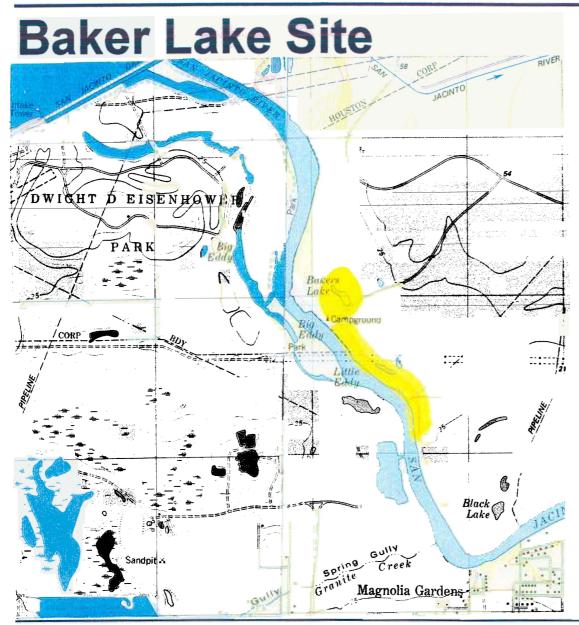


Characteristics:

Large area containing many existing isolated fresh water wetlands

- Already high quality
- Some enhancement already performed

French Limited Wetlands Mitigation



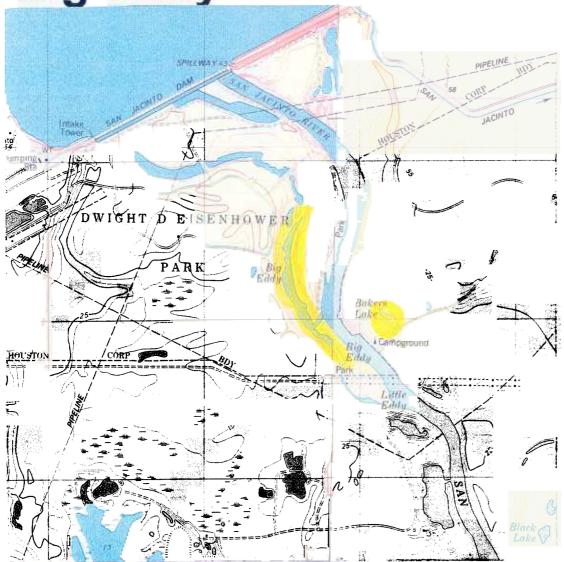
- Existing hardwood forest and cypress lake
- Easily accessible to public
- Could be expanded into fresh water marsh

Significant excavation

 Part of Newport residential development

French Limited Wetlands Mitigation

Big Eddy Site



- Existing high quality cypress lake
- Northern end could be expanded
- Public access by boat from park on Lake Houston
- Noted significant vandalism in adjacent park
- Steep southern shoreline

French Limited Wetlands Mitigation

BOOKMARK

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Appendix B

Characteristics and Aerial Photos of 13 Sites

Spoil Islands

Environmental/ Technical Criteria

- High wave stress
- Easily enhanced
- Dredged spoil
- Estuarine site
- · Large site
- No known protected species
- Good buffer zone
- Susceptible to hurricanes
- Location may have poor water quality

Sociological Criteria

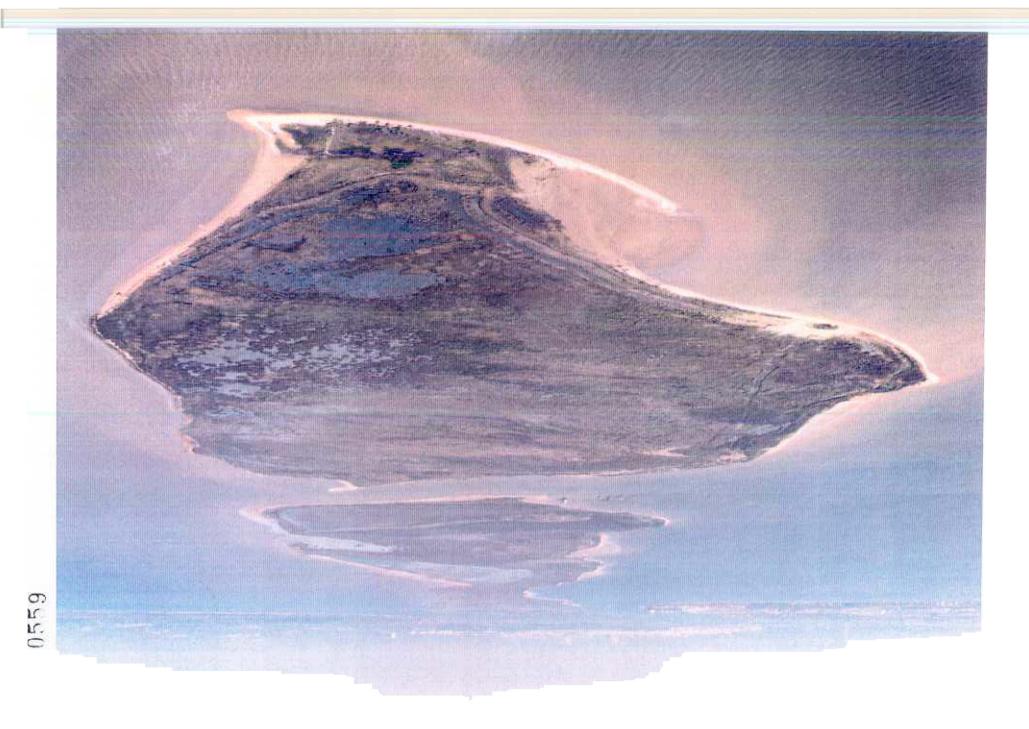
- No public access
- Future ownership unknown
- Community acceptance probably low

<u>Political</u> Criteria

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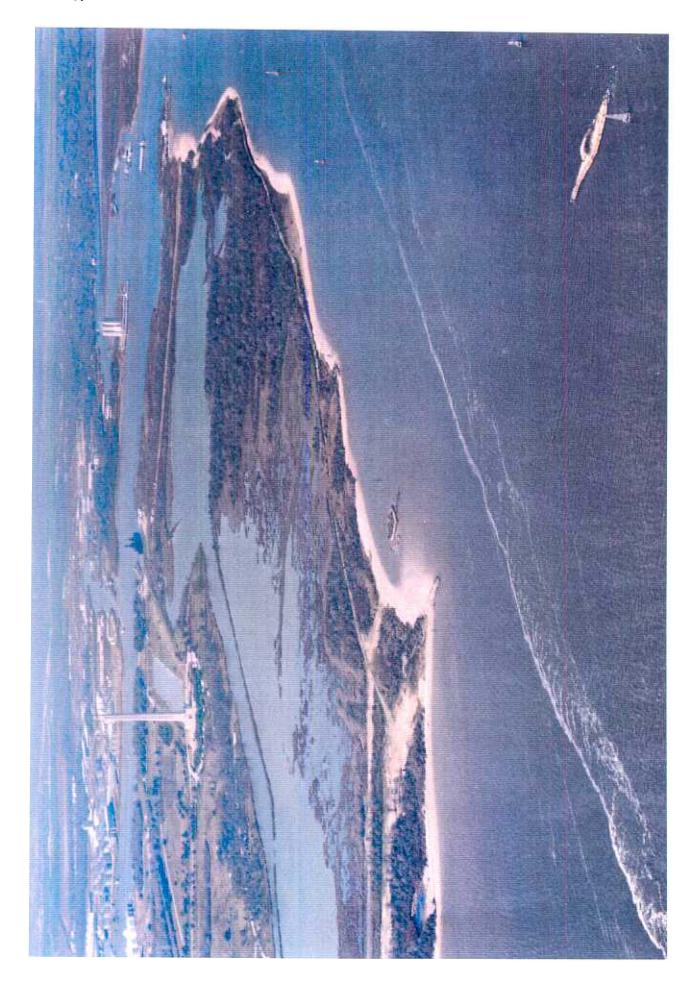
- Long distance from French site
- Regulatory acceptance unknown

- Construction access difficult
- Land cost unknown
- Potentially high construction cost



San Jacinto Monument Site

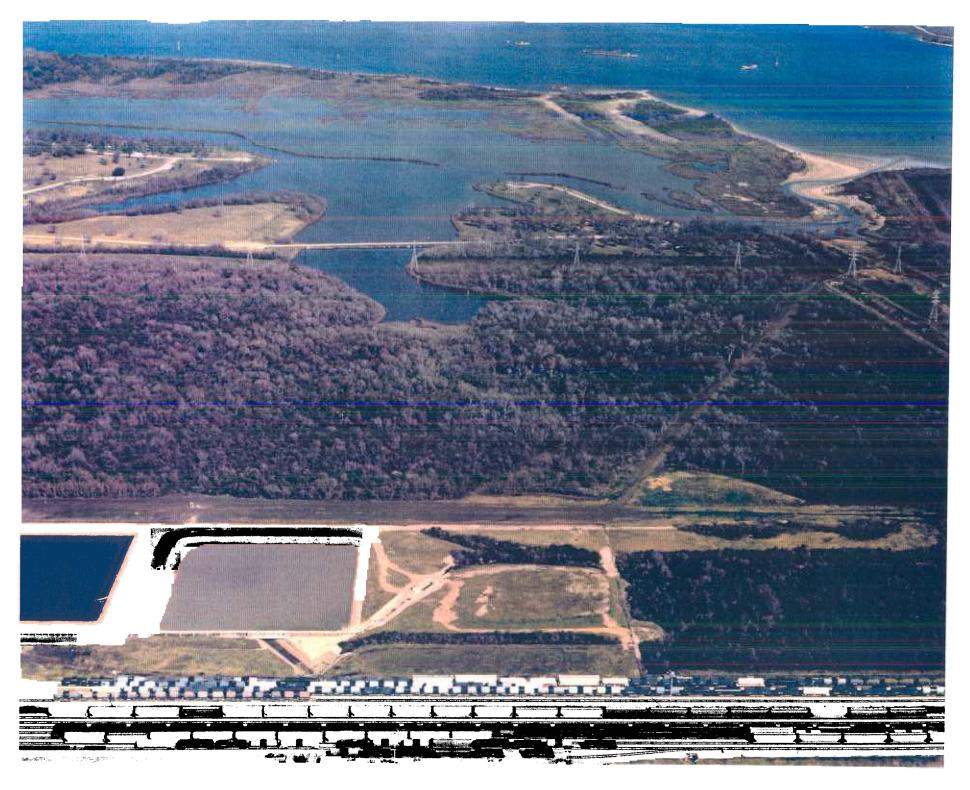
Environmental/ Technical Criteria	Sociological Criteria	<u>Political</u> <u>Criteria</u>	Economic Criteria
 Restoration and enhancement of existing wetlands 	Good public access	Several miles from French Site	State-owned land no land cost with possible exception of 23 acres
Both estuarine and fresh wetlands	Excellent aesthetics	TPWL will probably accept	Concerns regarding time constraints due to involvement of TPWL
 Very compatible land use - excellent buffer 	 Large number of possible visitors (1 million per year) 	Regulatory acceptance unknown	 Will involve disposal of some vegetation debris
 Some wave stress; susceptible to hurricanes 	 Excellent educational opportunity 		 Possible to use and grade existing soil
Large Site	 Recreation occurs elsewhere in park 		
Possible dredged spoil	 TPWL will accept - anxious to see wetland restored 		
ROW for CWA Water Line	 Highly valuable to many Texans 		
	Historically significant		



San Jacinto Battlefield Site

Environmental/ Sociological Criteria Political **Economic Criteria Technical Criteria** Criteria Would involve Easy access by public Several miles from State-Owned Land - no expansion and French Site land cost enhancement of existing f.w. wetland Poor buffer Good aesthetics except TPWL will probably Concerns regarding for transmission ROW time constraints accept • Regulatory acceptance Surrounding land use · Large number of High excavation cost heavy industrial visitors unknown Good educational • Potentially significant • Large site disposal of tree debris opportunity and soil · Recreation elsewhere in Low potential wave stress park Could disturb significant historical resources · Valuable to many **Texans**

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Brownwood Site

Environmental/	Sociological Criteria	Political	Economic Criteria
Technical Criteria		<u>Criteria</u>	
High wave stress	Very poor aesthetics	 Owned by City of Baytown - Park planned 	Low or no land cost
 Create/enhance both f.w. and estuarine wetlands 	 Good education and recreation potential 	 Several miles from French site 	Good access
 Good buffer now; poor once park developed 	 Potentially high number of visitors 	 Regulatory acceptance unknown 	
• Large site	 Good educational opportunity 		
 Susceptible to hurricanes 	 City of Baytown would accept ownership 		
	 Local community acceptance 		



Wallisville Road Site

Environmental/ Technical Criteria

- Existing high quality f.w. wetlands
- Can be enhanced or expanded
- Moderate wave stress
- · Good buffer
- Compatible surrounding land use
- Large site

Sociological Criteria

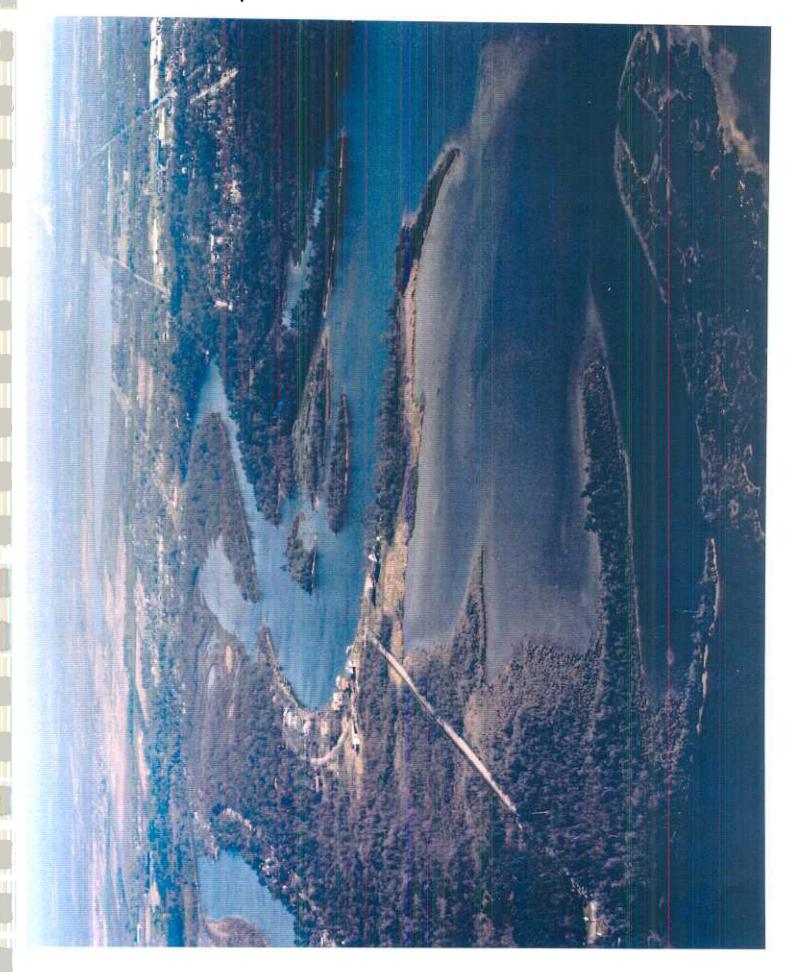
- Moderate public access
- Limited community benefits
- Good aesthetics
- Future ownership unknown

Political Criteria

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- Regulatory acceptance unknown
- Close to French site

- Moderate construction cost
- Land cost and availability unknown



Rio Villa Park

Environmental/ Technical Criteria

- Existing high quality f.w. marsh and forest
- Good buffer
- Low wave stress
- · Can enhance or expand
- Compatible land use
- Large site

Sociological Criteria

- Limited public access
- Owned by Rio Villa homeowners association
- Benefits could be limited to Rio Villa

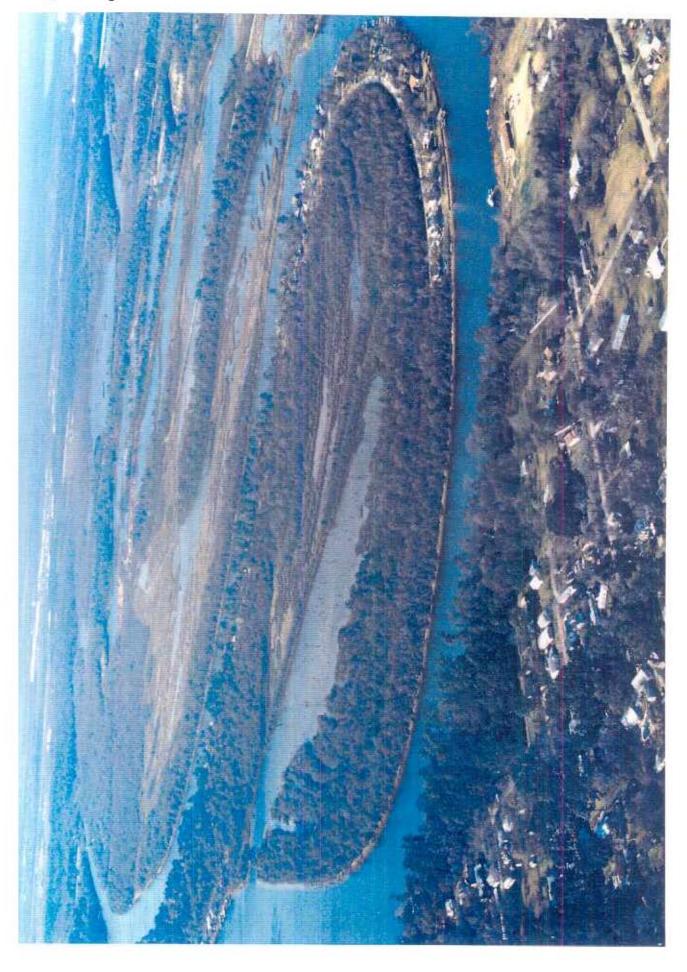
Political Criteria

- Close to French site
- Regulatory acceptance unknown

Economic Criteria

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- Requires significant excavation
- Significant removal and disposal of tree debris



Highland Shores Site

Environmental/ Technical Criteria

- Existing high quality
 f.w. marsh and forested wetland
- Good buffer
- Very large area
- Could be enhanced
- Compatible land use

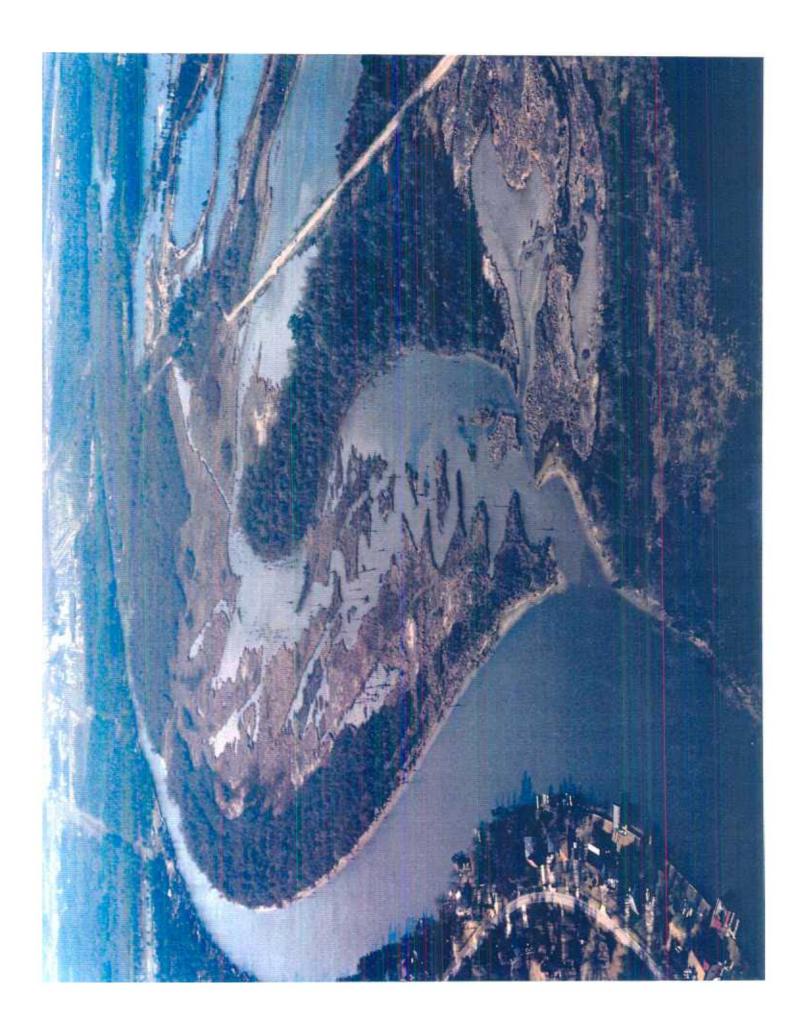
Sociological Criteria

- Moderate access
- · Near Highlands
- Future ownership unknown
- Potential for community benefits
- Excellent aesthetics
- Community acceptance probable

Political Criteria

- Regulatory acceptance unknown
- Close to French site
- Already a large, high quality site

- Land ownership and acquisition cost unknown
- Low to no excavation
- Low to no disposal



Barrett I Site

Environmental/ Technical Criteria

- Surrounded by hardwood forest
- Fresh water wetlands could be both enhanced and expanded
- Moderate buffer

- Compatible with surrounding land use
- Large site

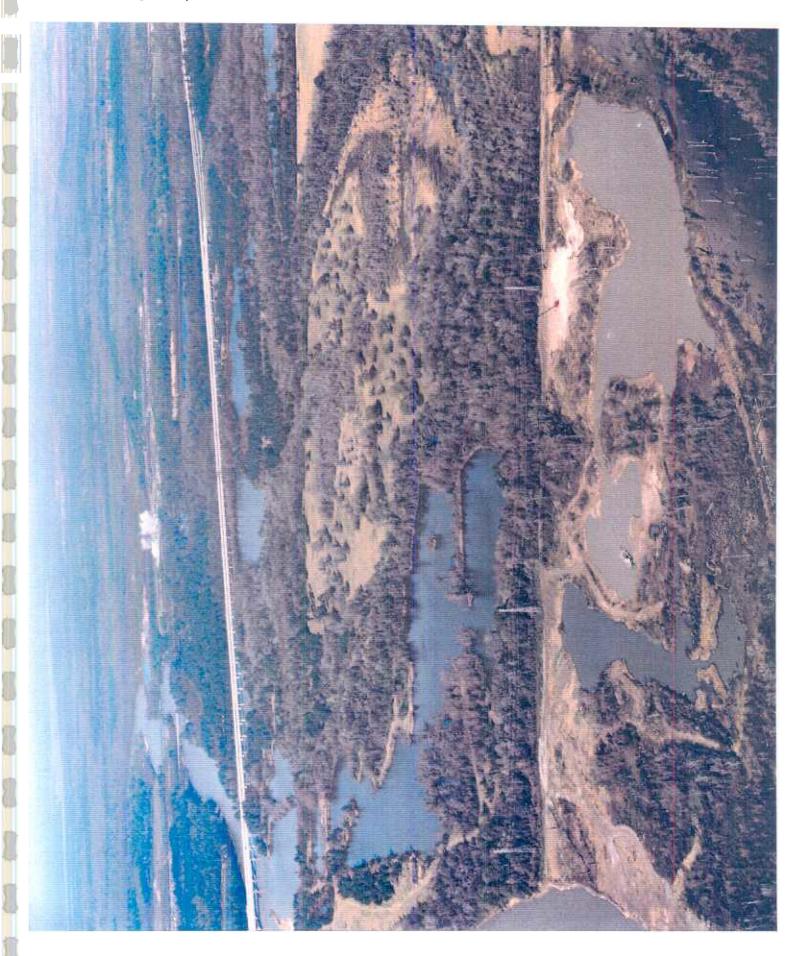
Sociological Criteria

- Easy public access for Barrett Station
- Possible to enable community access to San Jacinto River
- Good community benefits for Barrett Station — both recreational and educational
- Good aesthetics
- Barrett Station probably willing to own

Political Criteria

- Regulatory acceptance unknown
- Very close to French site

- Significant excavation required
- · Road upgrade required
- Land ownership and cost unknown
- Moderate tree debris and soil disposal cost



Barrett II Site

Environmental/ **Technical Criteria**

- · Existing f.w. wetland
- Could be expanded into pasture
- Well buffered
- Would be an isolated f.w. wetland
- Compatible land use pasture and sand pits
- Large site

Sociological Criteria

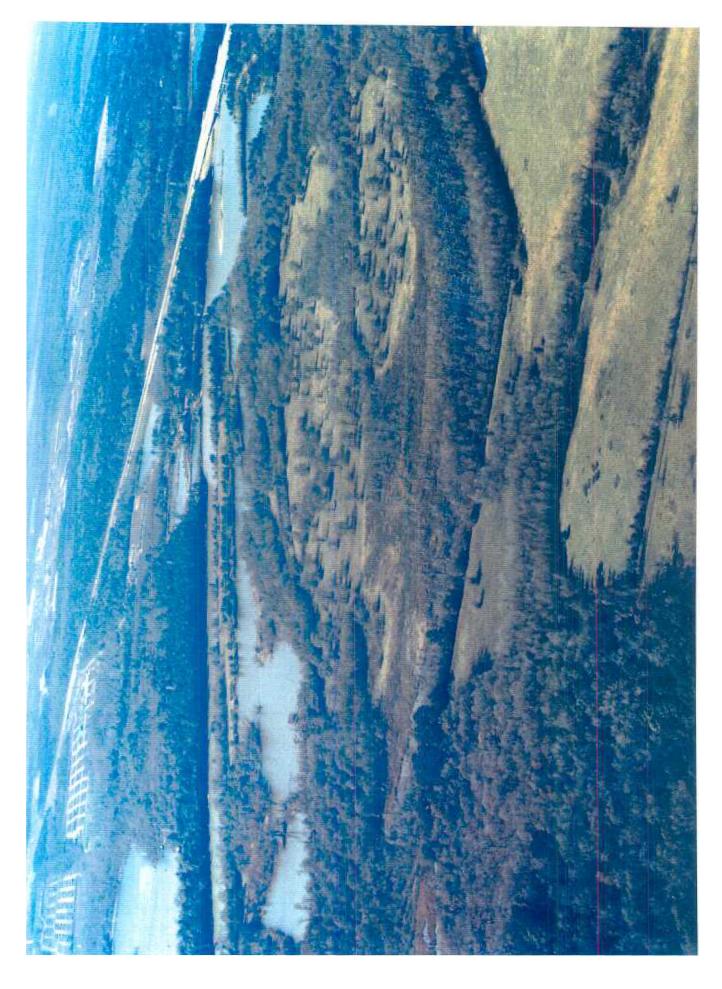
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- Poor public access
- Aesthetics impacted by nearby sand pits
- Moderate community benefits due to access
- Future ownership unknown

Political Criteria

- Close to Barrett Station Land cost unknown and French site
- Regulatory acceptance unknown

- Moderate excavation cost
- Soil disposal cost if expanded



Site Adjacent to French Limited

Environmental/				
Technical Criteria				

- Existing isolated f.w. forested wetland
- Can be enhanced or expanded
- Moderate buffer
- Medium sized-site

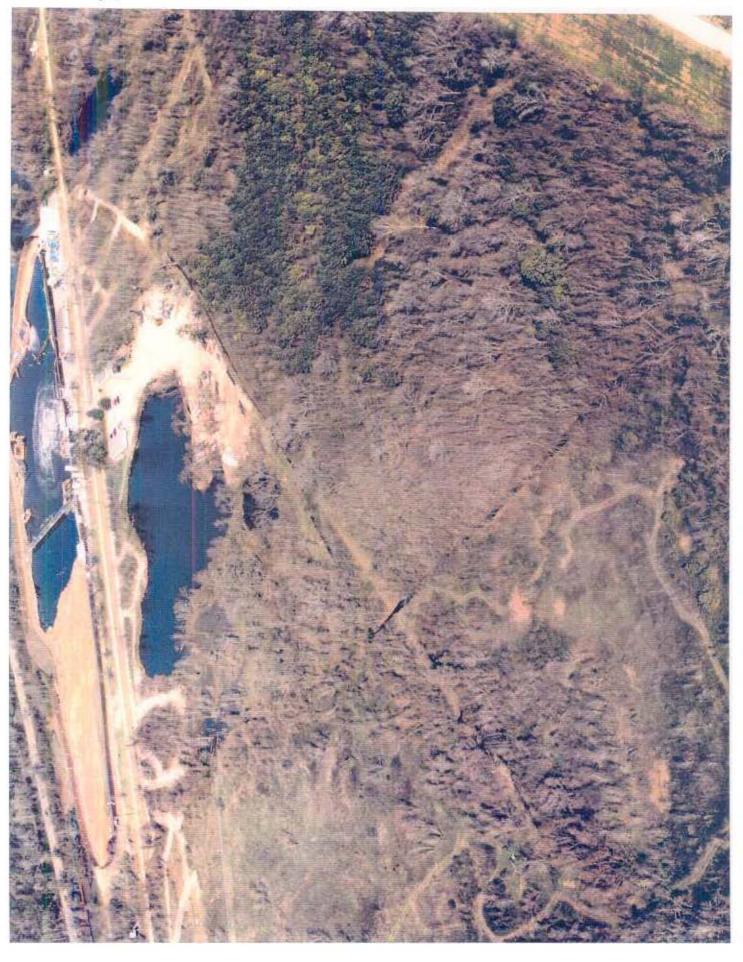
Sociological Criteria

- Easy public access
- Adjacent to Superfund site
- Close to Crosby and Barrett Station
- Good local community benefit potential
- Poor aesthetics
- High probability of acceptance by Crosby and Barrett Station
- Future ownership unknown

Political Criteria

- At French site
- Regulatory acceptance unknown

- Good construction access
- Possible high land cost
- High construction cost due to excavation and tree removal
- Potentially high tree debris and soil disposal cost



North Pasture - Specialty Sand

Environmental/ Technical Criteria

- Existing small f.w. wetlands
- Easily expanded into adjacent pasture
- Excellent buffer
- Large site
- Would be isolated f.w. wetland
- Commercial sand pits surround site

Sociological Criteria

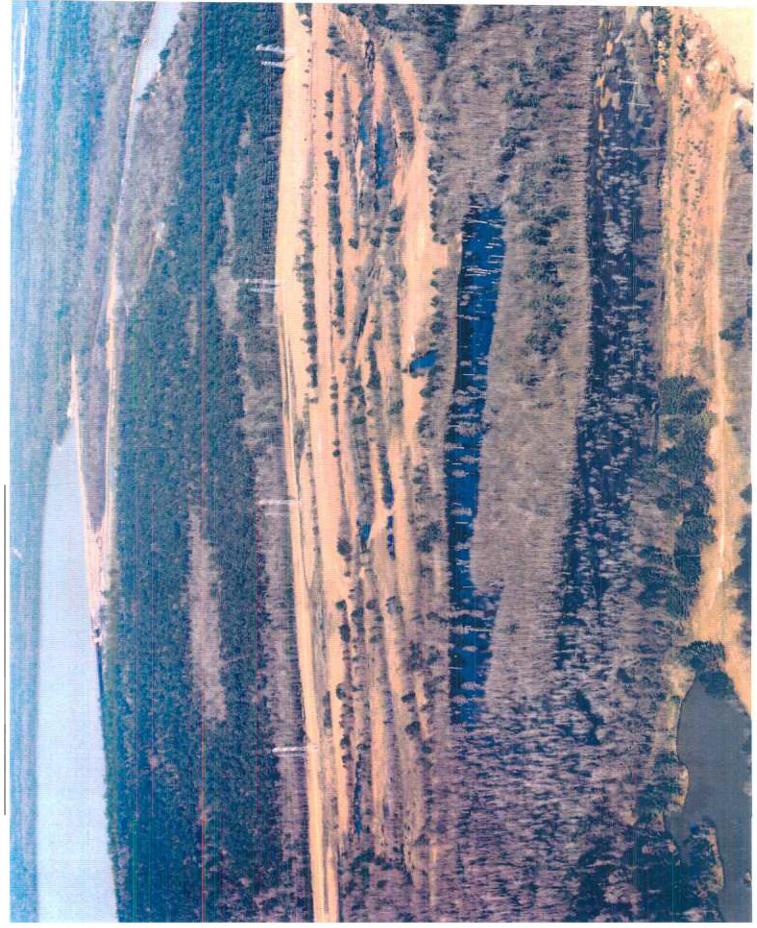
- Poor public access
- Low potential for community benefits
- Good aesthetics
- Future site ownership unknown

Political Criteria

- Regulatory acceptance unknown
- Close to French site

- Unknown land acquisition cost
- Potentially significant excavation
- Moderate cost of tree debris and soil disposal





Garrett Road - Specialty Sand

Environmental/				
Technical	Criteria			

- Existing isolated f.w. wetland areas
- Easily expanded and enhanced
- Good buffer
- Very large site
- Surrounded by commercial sand pits

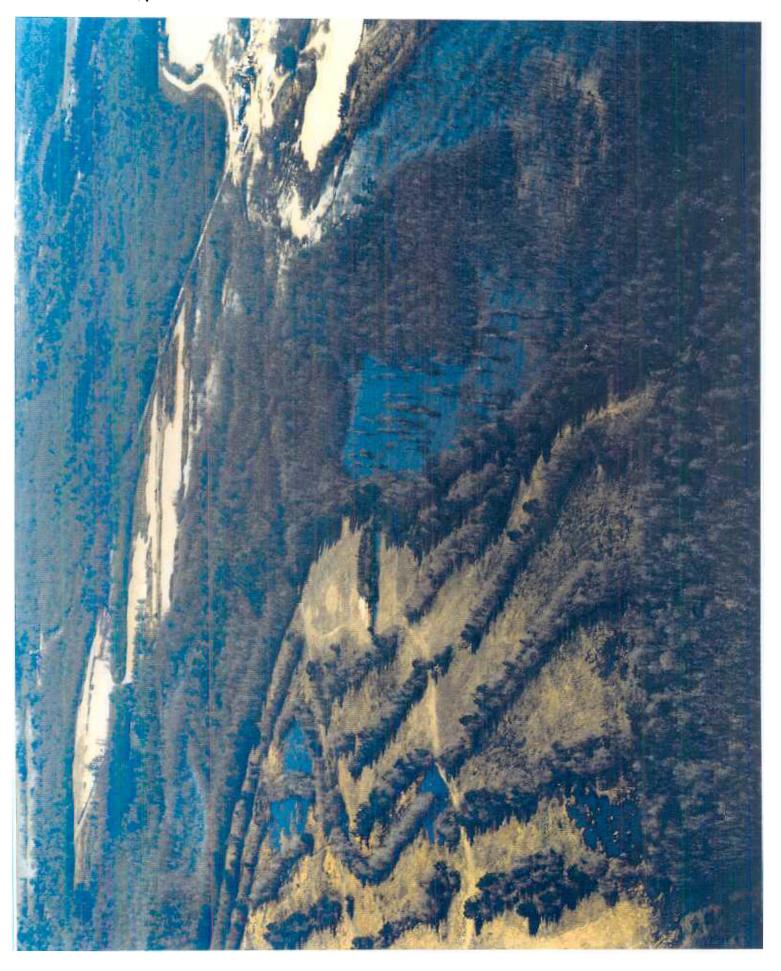
Sociological Criteria

- Poor public access
- Aesthetics impacted by adjacent commercial sand pits
- Very limited potential for public benefits
- Community acceptance unknown
- Future site ownership unknown

Political Criteria

- Regulatory acceptance unknown
- Close to French site

- Unknown land acquisition cost
- Moderate excavation cost
- Potentially high disposal cost for tree debris and soils



Little Eddy Site

Environmental/ Technical Criteria

- Existing isolated f.w. forested wetland
- Steep elevational grades •
- Strong enhancement and expansion possibilities
- Compatible land use
- Commercial sand pit nearby
- · Large site
- Well buffered

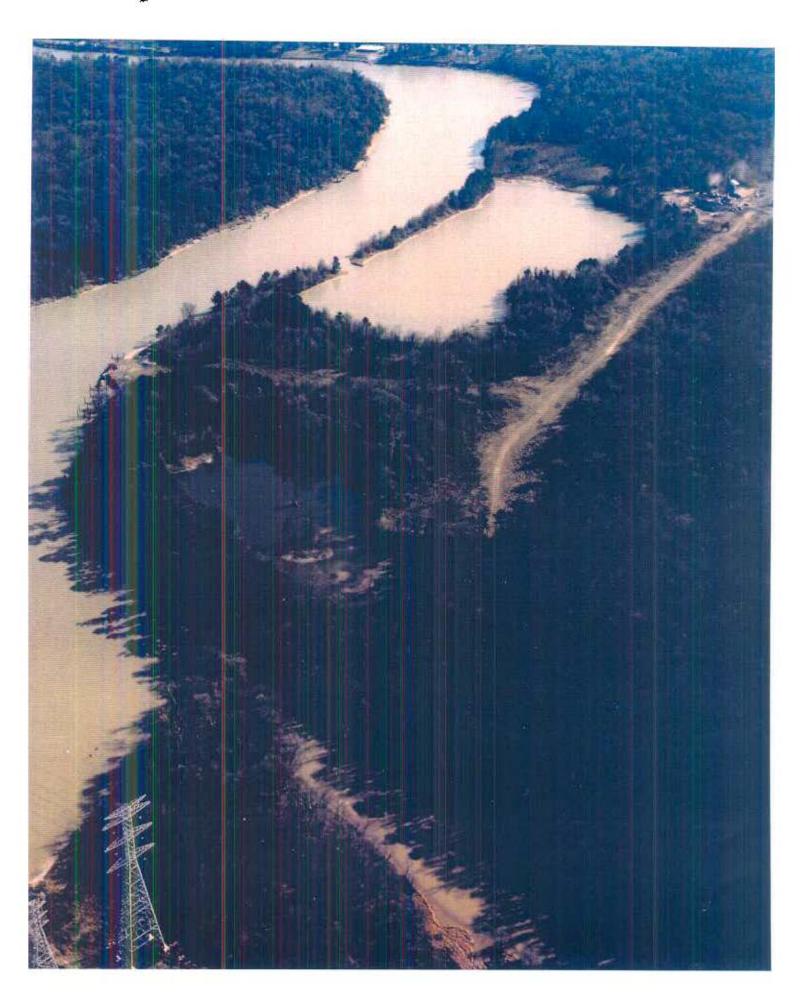
Sociological Criteria

- Poor public access
- Benefits to community limited
- Good aesthetics
- Future site ownership unknown
- Probable community acceptance

Political Criteria

- Close to French site
- Regulatory acceptance unknown

- Requires significant excavation - high cost
- Land ownership and cost unknown
- Potentially high disposal cost of tree debris and soil



BOOKMARK

Appendix C

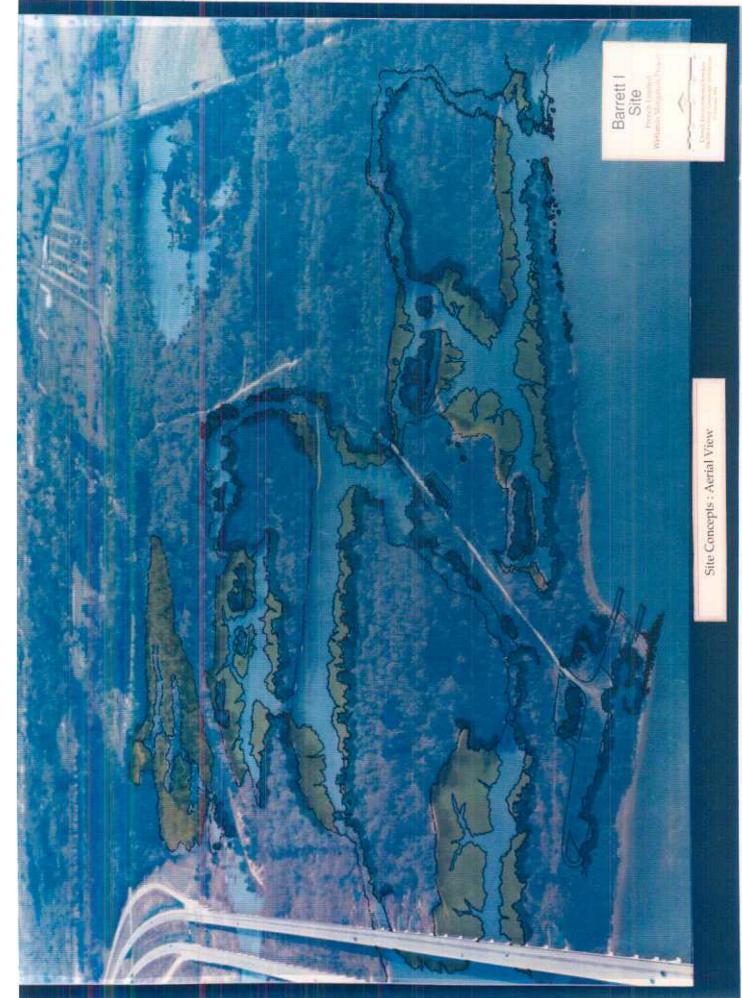
Appendix C

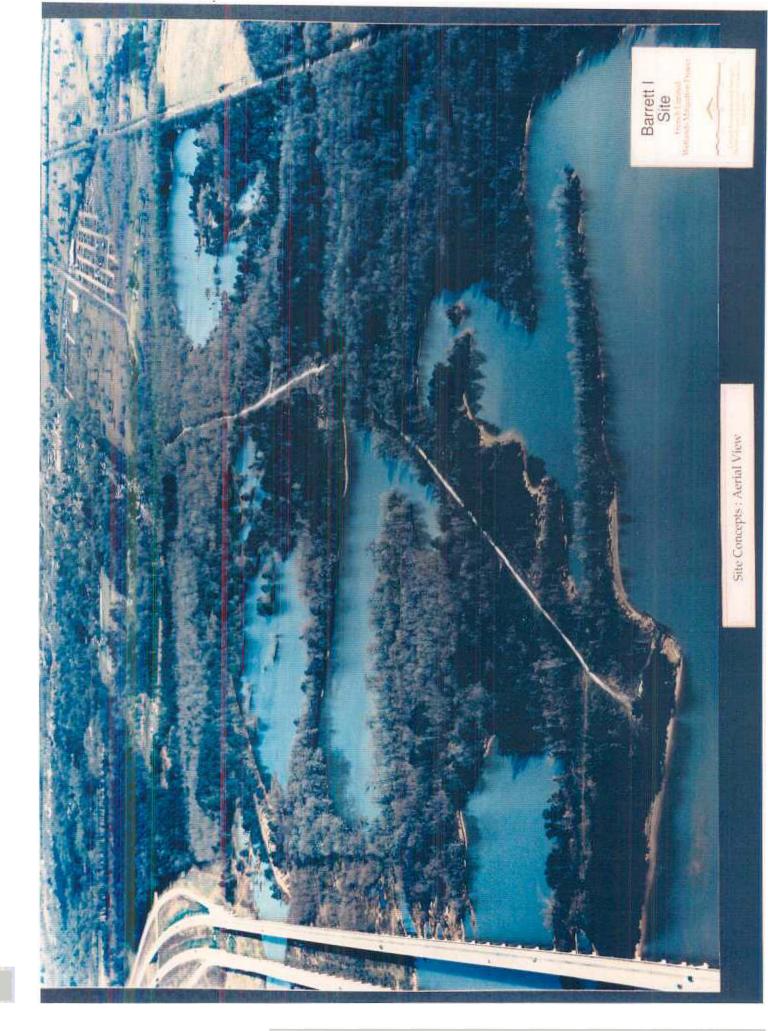
Historic Aerial Photos and Conceptual Designs for Four Sites

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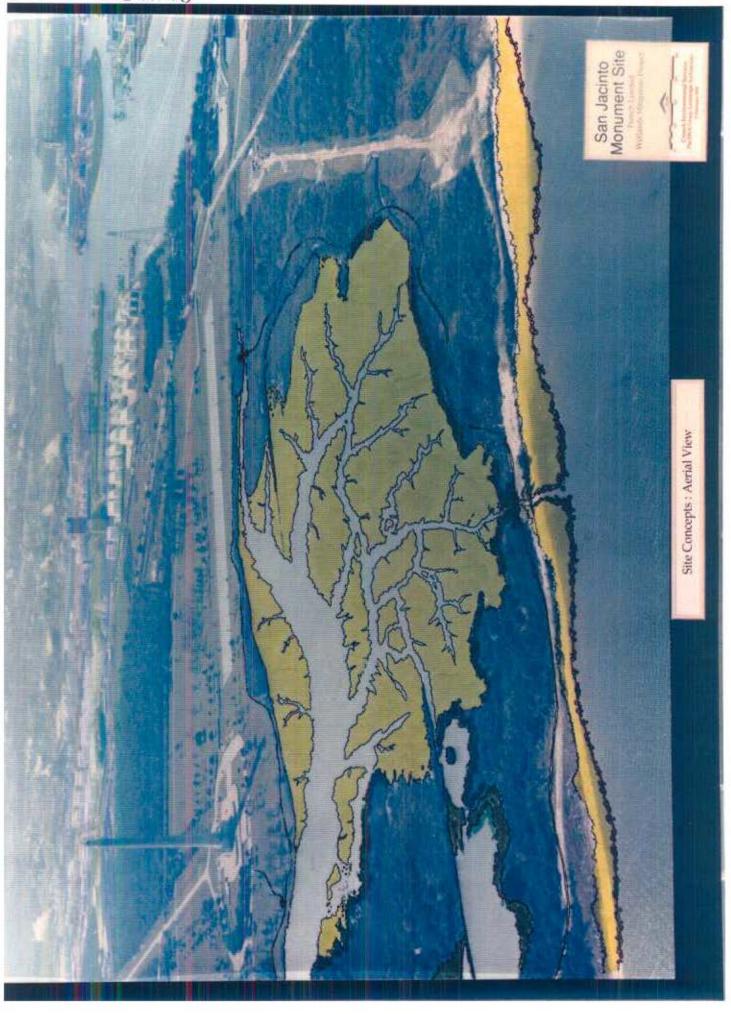
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Appendix D

Cultural Resource Report Two Candidate Sites

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EMANCO Inc.

Environmental Management and Consulting Services

Arliss D. Ray, Ph.D. William P. Wenstrom, Ph.D.

March 14, 1994

Mr. Greg Crouch Crouch Environmental Services 12115 Wessex Houston. TX 77089

TRANSMITTED VIA FAX

Subject: French, Ltd. Wetlands Mitigation Project

Dear Greg:

We completed our preliminary cultural resource investigation of subject project yesterday. The study began about 8 March 1994 under the direction of Carol S. Weed and Dr. Orloff G. Miller. We did this work pursuant to provisions of Texas Historical Commission (THC) Department of Antiquities Protection Permit No. 1374.

We understand that you are now finishing a feasibility study that will result in selecting one of two alternate locations for the wetland restoration or enhancement. The potential wetland mitigation locations are referred to as the Brownwood Subdivision and Monument Marsh sites, both in Harris County, Texas.

The purpose of our cultural resource study was to acquire sufficient information to recommend one or the other of the two locations that would have the least impact on significant cultural resources. The background and field investigations were designed to accomplish three goals: 1) to assess the current condition of previously reported cultural resources; 2) to identify previously unreported cultural resources; and 3) to identify intact land forms which might have hosted prehistoric or historic occupations. The results of our investigation are summarized below by location.

BROWNWOOD SUBDIVISION

Brownwood Subdivision is in Baytown, Texas. It is on the southwestern end of the so-called "Brownwood" or "Wooster" peninsula which is bounded on the west by Crystal Bay and on the south by Scott Bay. Both are extensions of the San Jacinto River (Houston Ship Channel). As currently planned, the proposed wetland project will primarily affect the shoreline west and south of Mapleton Street and west of Bayshore Drive, and the interior of the peninsula between Mapleton Street on the east and south, Crow Street on the north, and Bayshore Drive on the west.

Mr. Greg Crouch 14 March 1994 Page 2

Four types of previously reported or suspected cultural resources occur at Brownwood. They are: 1) previously reported prehistoric <u>Rangia</u> shell middens; 2) an historic cemetery associated with residential occupation of the land by the Wooster family; 3) structural remains associated with residential occupation of the land by the Brown and Wooster families in the early 20th century; and 4) remnants of the now-destroyed and partially inundated Brownwood Subdivision, abandoned in 1983. The previously reported shell middens occur south of Mapleton Street and west of Bayshore Drive.

Examination of historic maps and aerial photographs indicates that the shoreline configuration of the peninsula has undergone significant alteration over the last 40 years. Nonetheless, shell midden remnants which correspond in location to previously reported sites persist. Most of these remnants are confined to the near shoreline, but at least two extend inland for distances ranging from three to seven meters. We also found shell midden pockets during shoreline reconnaissance which were not previously listed in the state site file. Subsurface exploration of these remains using a split-spoon soil sampler and excavation of a 50cmX50cm test unit revealed undisturbed lenses of intact shell midden that produced Goose Creek plain and incised ceramics, chipped stone debitage, and burned shell fragments.

The Wooster Cemetery site is inundated and no remains of the cemetery are observable at low tide. We interviewed (b) (6) on 9 March 1994. (b) (6) whose family owned the cemetery, stated that the cemetery contained "about 10 graves" all but two of which remain in the cemetery. With one exception, all the graves belong to members of the Wooster family. The earliest burial in the cemetery is of an unknown person. The first Wooster use of the cemetery occurred in 1894 and the last internment was in 1962.

According to (b) (6) family members relocated two grave markers in addition to the markers and remains of two additional graves in 1983. The other graves were not disinterred because they were then considered to be in such an advanced state of decay as to render removal impossible.

Walk-over survey and limited shovel testing in the interior of the subdivision indicates that the surface topography also has been significantly altered from that shown on various maps. However, two small natural ridges remain on either side of Linwood Street. Examination of these ridges revealed no cultural material other than recent historic trash on the surface and in subsurface context.

Similarly, we were unable to identify any of the structural remains associated with early 20th century habitation of the area with the possible exception of a partially drowned foundation. We were unable to further assess this location because of the depth of the standing water.

Mr. Greg Crouch 14 March 1994 Page 3

MONUMENT MARSH

Monument Marsh is within the Marsh Unit of San Jacinto State Park, site of the Battle of San Jacinto. The site is bounded on the northwest by the Crosby-Lynchburg Road, on the southwest by Santa Anna Bayou, and on the northeast and southeast by the San Jacinto River (Houston Ship Channel). Santa Anna Bayou is a natural boundary between the marsh and the actual battlefield.

Like the Brownwood Subdivision, prehistoric and historic period cultural resource sites are reported to occur at Monument Marsh. They are located on the San Jacinto River side of the site, and along the southwestern shore of Santa Anna Bayou.

Mr. Ted Hollingsworth of the Texas Parks and Wildlife Department also stated that he found four other locations along the San Jacinto River that contain cultural material. They are two historic trash dumps, a shell midden lacking stone or lithic artifacts, and a shell midden with lithics, ceramics, burned bone and burned shell. In addition, proximity of the marsh to the historic battlefield suggests an undetermined possibility of encountering the unmarked graves of some 600 Mexican dead who died during the battle. Historic era maps and aerial photographs also indicated a house site within the area.

Unlike Brownwood, Monument Marsh has undergone severe surface alteration from dredge spoil deposition. In addition, shoreline erosion and inundation along the San Jacinto River and Santa Anna Bayou caused by land subsidence is extensive. The extent of dredge spoil dumping and shoreline alteration is well documented on a series of historic maps and aerial photographs which date as early as the 1920s.

Our field investigation at Monument Marsh included walk-over survey, shoreline reconnaissance, and subsurface testing to explore the extent of dredge spoil deposition. We found all the previously reported locations along the shore to have been severely impacted by erosion and land subsidence. Although we observed pockets of shell on the battleground side of Santa Anna Bayou, the landward extent of these concentrations and their origin remains undetermined.

At this stage of the project, we did not seek permission to excavate within the battleground portion of the park because the actual location of any interpretative facilities to be constructed there is speculative. It was apparent, however, that each of the previously reported cultural sites is partially inundated, eroded to some extent, and has also been previously disturbed by landscaping and other surface disturbance during maintenance of the park grounds.

From one to ten feet of dredge spoil covers most of the Marsh Unit. However, we found two small areas north and south of the so-called "Freshwater Pond" where the existing land surface consists of stratified Mr. Greg Crouch 14 March 1994 Page 4

beach or deflated dune sand. However, we observed no former "A" horizons or other developed living surfaces in the soil profiles at these locations.

Remnants of the former house site include a poured concrete slab, a possible septic tank, and foundation pilings. A family cemetery possibly associated with the house is well outside the project area.

CONCLUSIONS

Our investigation of the Brownwood and Monument Marsh locations revealed the presence of prehistoric and historic archaeological material at both. In particular, intact shell middens at Brownwood Subdivision retain sufficient integrity to contribute possibly significant archaeological information to the record of prehistoric habitation of the area. In contrast, archaeological sites at Monument Marsh are predominantly destroyed by subsidence and erosion and appear to retain no such integrity. The historic house remnants at both locations and the Wooster Cemetery at Brownwood have been similarly impacted by various natural forces during the historic period. Their degree of integrity is likewise highly suspect.

Based on our investigation, known cultural resources at Monument Marsh are less likely to retain information that would make an important contribution to our understanding of this area's early inhabitants. Accordingly, we now believe that implementation of the wetland project there would be least likely to impact significant cultural resources based on our current understanding of the scope of work involved in the wetland enhancement. However, THC will likely require that we review and further document these locations and other sites within the battleground once the wetland plan is finalized. Similarly, it may be necessary to perform additional systematic subsurface exploration of the exposed natural land surfaces to the north and south of the "Freshwater Pond".

I reiterate that our work was designed to compile sufficient information to assist you in the final selection process. It is not intended to be a substitute for any consultation with THC and/or others that might be required during a typical 106 or similar review.

I am providing this letter by fax in order to get our findings to you as quickly as possible. If you require additional information or a sketch map showing the specific cultural resource sites or other locations discussed herein, please call me.

Sincerely,

William P. Wenstrom. Ph.D.

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Appendix E

Hydrologic Evaluations -Two Candidate Sites

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FRENCH LIMITED PROJECT

WETLAND HYDROLOGY EVALUATION BROWNWOOD SITE

FINAL REPORT

Prepared for:

FLTG, Incorporated Crosby, Texas

Prepared by:

APPLIED HYDROLOGY ASSOCIATES, INC. Denver, Colorado

April, 1994

FRENCH LIMITED PROJECT

WETLAND HYDROLOGY EVALUATION BROWNWOOD SITE

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French Ltd. Project

FLTG, Incorporated

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Appendix A Laboratory Analytical Reports

FLTG, Incorporated

1.0 INTRODUCTION

Applied Hydrology Associates, Inc. (AHA) developed and implemented a scope of work to obtain water, soil and sediment samples and perform hydrologic evaluations for the following potential wetland development site adjacent to the San Jacinto estuary:

The Brownwood Site, a former residential site in Baytown adjacent to Crystel Bay which was condemned and abandoned due to flooding as a result of partial subsidence below sea level.

Field work for this project was performed by G&F Technical Services, Inc. (G&F), and coordinated and supervised by Jim Thomson and Art O'Hayre of AHA. The project was initiated with a site meeting with Crouch Environmental on February 25, 1994. Field work was conducted between March 2, 1994 and March 9, 1994. Field-generated data and laboratory analytical results were communicated to project members as received, and were complete by March 14, 1994.

The scope of work is described in Section 2.0. Results are presented in Section 3.0. Laboratory analytical reports are included in Appendix A.

2.0 SCOPE OF WORK

The work performed consisted of the following tasks:

- (1) Perform depth sounding profiles of inshore waters
- (2) Sample inshore waters for salinity, dissolved oxygen, nutrients, and pollutants
- (3) Sample inshore sediments for pollutants
- (4) Sample shallow soils for pollutants
- (5) Drill shallow soils to 15 ft, determine the depth of the pre-subsidence ground surface, and assess soil permeabilities
- (6) Perform bathymetric surveying offshore
- (7) Evaluate channel and cut plans, to determine likely tidal mixing

Results of these tasks are presented in the above sequence in the following sections. Sample locations are presented on aerial photographs provided by Crouch Environmental Services.

3.0 RESULTS

3.1 Flooded Areas and Water Depths

Three distinct flooded areas were identified at the Brownwood Site during the March 1994 sampling program. These flooded or ponded areas were isolated from each other by land and are referred to as West Pond, Middle Pond and East Pond (see Figure 3-1). The west pond contains two arms, as shown on Figure 3-1. The east pond is connected to Crystal Bay by a channel with a concrete tide gate structure.

Water depths at each water sampling location were recorded as described in Section 3.2. Depth soundings were also taken at approximately 150 foot intervals across each pond using a staff gage. The depth sounding transects and directions are shown on Figure 3-1. Results were as follows:

East Pond: 2.2 ft, 1.8 ft., 2.0 ft. and 1.9 ft

Middle Pond: 2.1 ft, 1.4 ft., 1.5 ft. and 0.7 ft

West Pond: 0.5 ft, 1.1 ft., 1.0 ft., 1.4 ft. 1.5 ft, 1.9 ft and 0.9 ft

3.2 Water Samples

Nutrient samples, water depth, Secchi disc and field parameters (temperature, specific conductance, pH, and dissolved oxygen) were collected at several locations from each flooded area or pond as marked on Figure 3-2. Water depths were measured with a staff gauge. Secchi disc depths were measured with a tape. Samples were collected with a sampling bomb over a one foot interval. At locations of sufficient depth, samples were collected and analyzed for field parameters from the surface and at depth. A composite sample was collected for nutrient analysis unless there was a significant difference in field parameters with depth. In that case nutrient samples were collected from each depth interval. Results are presented in Table 3-1.

A composite water sample was collected at location 3 for laboratory chemical analyses for metals, volatile organics, pesticides, PCBs, total organic halogen and total petroleum hydrocarbon. These results are pesented in Tables 3-2 and 3-3.

Table 3-1
Inshore Waters
Water Depths, Nutrients and Field Parameters

Sample	Date	Temp.	рН	Field	Dissolved	NH4	Nitrate	Phosphate	Water	Secchi	Comments
Number		(deg.		S.C.	Oxygen	Conc.	Conc.	Conc.	Depth	Disc	
		F)		(us/cm)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(ft)	(inches)	
1-8	3/4/94	60.7	7.63	8,100	6.9	<0.10	< 0.05	< 0.01	2.2	11	East Pond, 0-1 ft
1-D	3/4/94	62.8	8.00	8,140	4.1	<0.10	<0.05	< 0.01	2.2	11	East Pond, 1- 2 ft
1-C	3/4/94								2.2	11	East Pond, depth composite
2-S	3/4/94	60.8	8.42	8,120	4.8				1.3	11	East Pond, 0-1 ft
2-D	3/4/94	60.5	8.57	8,060	4.8				1.3	11	East Pond, 0.3- 1.3 ft
2-C	3/4/94					<0.10	<0.05	<0.01	1.3	11	East Pond, depth composite
3-S	3/4/94	66.4	8.35	10,870	5.8				1.8	11	Middle Pond, 0-1 ft.
3-D	3/4/94	64.0	8.41	10,450	5.8				1.8	11	Middle Pond, 0.5- 1.5 ft.
3-C	3/4/94					0.11	<0.05	<0.01	1.8	11	Middle Pond, depth composite
4-S	3/4/94	67.0	8.48	9,870	5.2	<0.10	<0.05	<0.01	0.7	>0.7	Middle Pond, 0- 0.5 ft.
5-S	3/4/94	68.2	8.63	10,870	5.8	<0.10	<0.05	< 0.01	1.1	10	West Pond, 0-1 ft.
6-S	3/4/94	68.6	9.00	11,950	6.2	<0.10	< 0.05	< 0.01	1.3	10	West Pond, 0-1 ft.

<u>Notes</u>

S = shallow

D = deep

C = composite

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Table 3-2

Analytical Results - Organic Parameters

Area	Sample ID (S19)	VOCs	тох	TPH	Pesticides PCBs
North Area	A301	ND	0.2	ND	Chlordane, 21 ppb 4,4'-DDE, 13 ppb Dieldrin, 3.8 ppb
Center Area	A302	ND	0.2	ND	ND_
Perimeter Area	A303	ND	ND	ND	4,4'-DDE, 13 ppb
Middle Pond #3	C301	Acetone 6	ND	ND	ND
West Pond	A304	Acetone 24	ND	54	ND
East Pond	A305	Acetone 6	ND	ND	ND
	North Area Center Area Perimeter Area Middle Pond #3 West Pond	North Area A301 Center Area A302 Perimeter Area A303 Middle Pond #3 C301 West Pond A304	North Area A301 ND Center Area A302 ND Perimeter Area A303 ND Middle Pond #3 C301 Acetone 6 West Pond A304 Acetone 24	ID (S19) North Area A301 ND 0.2 Center Area A302 ND 0.2 Perimeter Area A303 ND ND Middle Pond #3 C301 Acetone 6 ND West Pond A304 Acetone 24 ND	North Area A301 ND 0.2 ND Center Area A302 ND 0.2 ND Perimeter Area A303 ND ND ND Middle Pond #3 C301 Acetone 6 ND ND West Pond A304 Acetone 24 ND 54

Notes

Units: VOCs - ppb; TOX/TPH - ppm

Table 3-3
Analytical Results - Metals

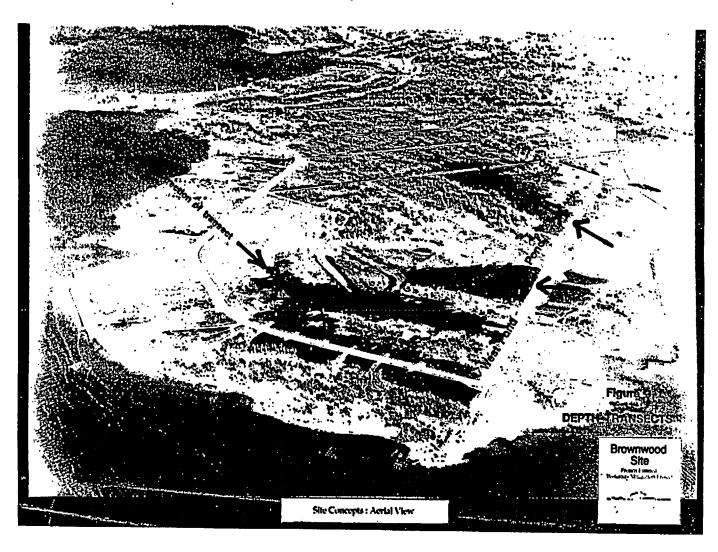
Media		SOIL		SEDIME	NTS	WATER
Site	North Area	Center Area	Perimeter Area	West Pond	East Pond	M. Pond
Al	5,540	3,600	2,520	3,130	5,440	. 0
Sb	7.0	6.7	6.9	7.1	7.1	
As	5.40	2.00	0.99	1.10	1.80	0.04
Ba	25.0	22.2	22.1	22.1	48.0	104.0
Be	0.25	0.24	0.25	0.25	0.36	<.001
Cd	1.2	1.2	1.2	1.3	1.3	<.005
Ca	1,300	602	629	711	651	107
Cr	8.0	4.9	3.3	3.5	6.5	< 0.004
Co	2.1	2.0	1.2	1.3	7.0	<.005
Cu	15.1	3.2	2.9	4.3	3.5	<.005
Fe	4,320	4,860	2,180	2,670	5,290	79
Pb	45.0	11.1	13.0	20.2	18.5	<.001
Mg	656	334	348	454	795	216
Mn	81	103	64	34	168	0
Hg	0.13	0.12	0.12	0.13	0.13	<.0002
Ni	6.7	4.6	4.7	4.8	4.8	<.019
κ	200	269	278	285	284	69
Se	0.25	0.24	0.25	0.25	0.25	<.005
Ag	0.75	0.72	0.74	0.76	0.76	<.003
Na	1,010	229	664	747	1,050	188
Th	0.8	0.7	0.7	0.8	0.8	
Va	12.8	10.8	6.4	7.1	16.1	<.004
Zn	32.2	15.8	27.6	16.2	14.7	0.0

Units: ppm

Hydrologic Evaluation - Brownwood Site

Figure 3-1

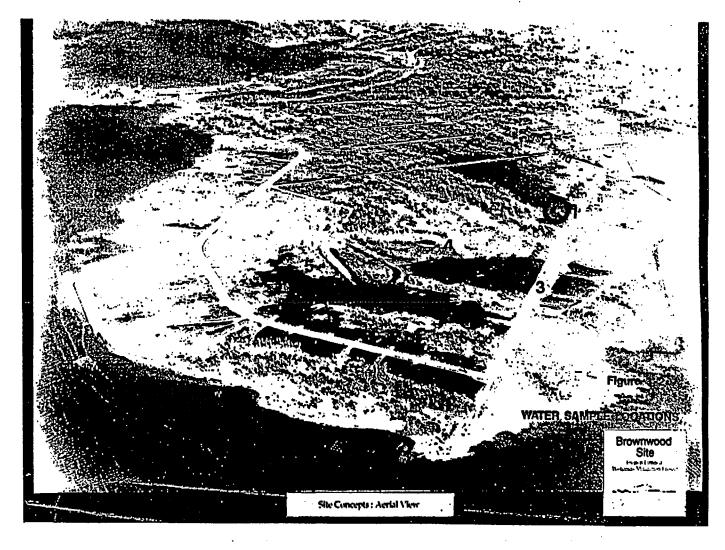
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WETLANDS ASSESSMENT
Hydrologic Evaluation - Brownwood Site

French Ltd. Project FLTG, Incorporated

Figure 3-2



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3.3 Sediment Samples

Laboratory chemical analyses for metals, volatile organics, pesticides, PCBs, total organic halogen and total petroleum hydrocarbon were performed for two composite sediment samples from the ponded areas. The West Pond composite was comprised of sample numbers 11 and 20 from the west pond and sample number 9 from the middle pond. The East Pond composite was comprised of sample numbers 7, 19 and 14 from the east pond. These sample locations are shown on Figure 3-3.

Sediment samples were taken with a 1 foot split spoon sampler driven into the sediments at the sample location. Chemical analytical results are presented in Tables 3-2 and 3-3. Field logs for these sediment samples are presented below:

Sample No. 7:	Water depth 1.5 ft., dark brown sandy loam
Sample No. 9:	Water depth 1 ft., sandy loam soil dark brown grading to tan with depth
Sample No. 11:	Water depth 1 ft., sandy loam dark brown soil with organic material and shingle debris
Sample No. 14:	Water depth 1.9 ft., medium brown sandy clay loam
Sample No. 19:	Water depth 1.5 ft., dark brown clay loam
Sample No. 20:	Water depth 0.75 ft., sandy loam dark brown soil

3.4 Soil Samples

Composite soil samples for laboratory chemical analyses for metals, volatile organics, pesticides, PCBs, total organic halogen and total petroleum hydrocarbon were collected from three land areas. The North Area composite comprised sample numbers 1, 2, 3 and 4 from north of the site, approximately 100 feet from the perimeter road. These samples were taken in a location of potential channel excavation to improve water circulation with Crystal Bay. The Central Area composite comprised sample numbers 15, 16, 17 and 18 from a higher elevation area in the center of the site. The Perimeter composite comprised sample numbers 5, 6, 8, 12 13, and 19 located on the west, south and east perimeter of the site. These sample locations are shown on Figure 3-4.

Soil samples consisted of composite cuttings collected by driving a powered auger to a depth of approximately 3 feet at each sample location. Samples were composited by area in the lab. Chemical analytical results are provided in Table 3-2. Field logs for these soil samples are provided in Table 3-4.

WETLANDS ASSESSMENT Hydrologic Evaluation - Brownwood Site French Ltd. Project

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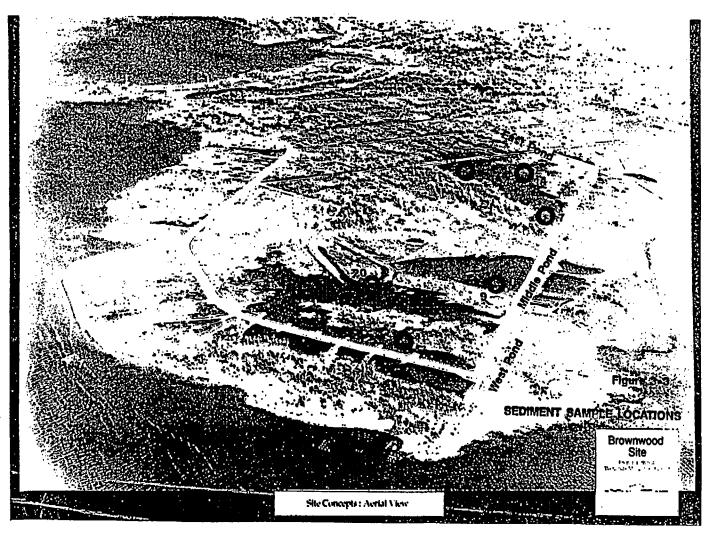
Table 3-4 Soil Sample Field Logs

Sample	Description
1	Clay loam dark, brown soil, saturated at surface
2	Dark tan silty clay, wet at surface
3	Silty loam, moist at surface, saturated at 3 ft.; crawdad holes in area
4	Brown silty loam 0-2 ft.; yellow stiff clay 2-3 ft.; trashy area near driveway close to east pond.
5	Dark brown organic loam 0-0.5 ft, light brown sandy clay with orange mottling 0.5 - 3 ft
6	Brown silty clay loam 0-2.5 ft.; tan silty clay with orange mottling 2.5-3 ft.
8	Stratified tan sand with brown sandy clay layers 0-2.5 ft; gray sandy clay loam 2.5-3 ft.; standing water around site
10	Medium brown sand back yard of home site near fence and bushes
12	Dark brown sandy loam; saturated at surface debris and trash about area in front of abandoned house
13	Brown sand 0-2 ft.; tan sand 2-3 ft. moist but not saturated, brush and grass in area.
15	Medium brown sandy loam, saturated at 1.5 ft; grassy area on rise above marshy area.
16	Moist sandy loam 0-2 ft.; mottled red and brown clay 2-3 ft. near tall trees
17	Moist medium brown clay loam 0-2 ft.; Moist sandy loam 2-3 ft.
18	Medium brown sandy loam saturated at 1.5 ft.; tall grassy area

WETLANDS ASSESSMENT
Hydrologic Evaluation - Brownwood Site

French Ltd. Project FLTG, Incorporated

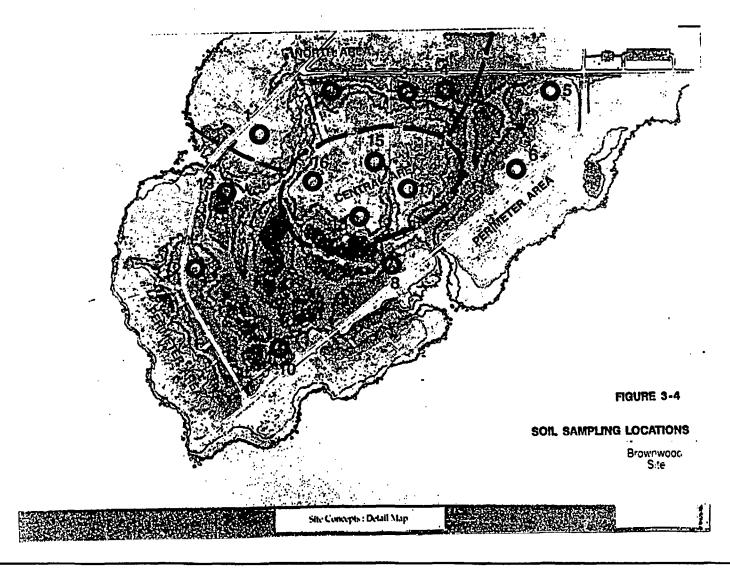
Figure 3-3



April 1994

Figure 3-4

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3.5 Drilling & Stratigraphy

Soil borings were performed by Layne Environmental Services using a CME 75 hollow-stem auger rig equipped with 2-inch-diameter split-spoon samplers. Samples were collected from the ground surface to a nominal depth of 15 feet, at two-foot intervals. Samples were logged by Jim Thomson of AHA. Soil boring locations are shown in Figure 3-5. Boring logs are presented in Figures 3-6 through 3-8. Samples were discarded after logging and the hole was backfilled with soil cuttings. At boring BW-1, a duplicate core was preserved in acrylic liners. Boring locations were pegged for future surveying.

The shallow soil stratigraphy at the Brownwood site is characterized by alluvial silts and sands, and marine to estuarine clays and silts. All units appeared to be natural features, with layering diagnostic of sedimentary deposition. Surface soils near the shore consisted of approximately 4 feet of fine to medium sand of estimated moderate permeability, which would allow moderate seepage rates. A characteristic gray to brown stiff clay was identified at 1.1 ft at BW-1, 3.7 ft at BW-2, and 4.5 ft at BW-3. A distinctive light gray tan lower sand was identified at 11 ft at BW-1, 7.2 ft at BW-2, 9.8 ft at BW-3. In general, these formations were found at lower depths in the west to southwest, suggesting that subsidence was greater in this direction.

Two layers of clam shell remains were identified at BW-1 at 1.0 to 1.6 ft. These layers appear to correlate with layering of shelly material along the beach at the southwest point, and may be of archeological interest. No obvious pre-subsidence surface could be identified.

3.6 Offshore Water Depths

Profiles of offshore water depths were obtained using a depth sounder with strip chart on a series of profiles. Each profile began in relatively deep water and continued at a steady speed along a fixed bearing toward shore until shallow water preventing further movement was reached. The sounding logs were not corrected for tidal variation, and are not controlled horizontally. However, they give a general picture of water depths in the offshore area. The sounder was six inches below water: this must be added to logged depths to get actual water depth.

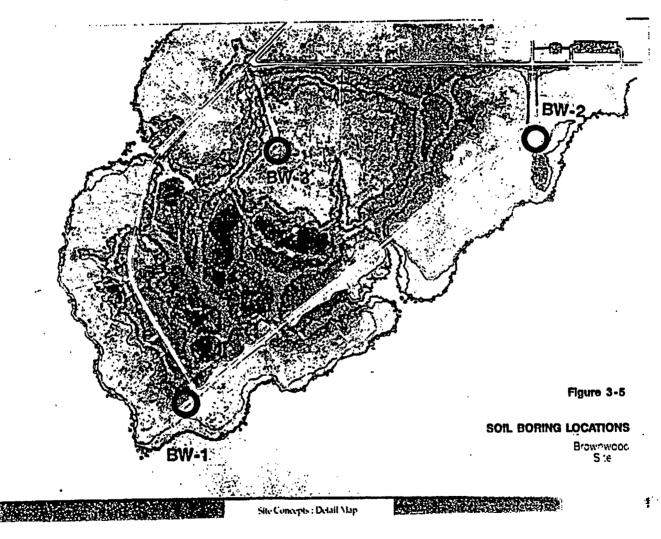
Soundings were performed along four profiles on the northwest shore, as shown on Figure 3-9. Sounding logs are presented in Figures 3-10 and 3-11. The logs show that in this area, deeper water (9 to 11 feet deep) offshore gives way to a fairly broad shallower bank (2 to 3 feet deep) that slopes gently up to the shoreline.

April 1994

French Ltd. Project FLTG, Incorporated

Figure 3-5

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WETLANDS ASSESSMENT
Hydrologic Evaluation - Brownwood Site

French Ltd. Project FLTG, Incorporated

Figure 3-6

Soil	Boring:	BW-1	Date Completed: 3/4/94
Geologist:		J.A.M.	Thomson Drilling Co.: Layne Environmental Services
DEPTH	cornsi	LITHOLOGY	DESCREPTION
	-		
11			·
	 		
6.0		SAND	Light broun, contains plant matter, poorly laminated.
1.0		TANE.	Contains clam shell fragments.
2.0		BAELLY.	Contains clam shell fragments.
3.0			
4.0		EXRX	Dark broun.
5.0		CLAY	Stiff, gray with yellow/brown mottling. 2 6.2'
6.0			mottling is light broun.
		EDRY	Light brown.
11			
8.0			1 1
9.0		CLAY SANOY	
10.0		CLAY	·
11.0		CLAY SANDY	Gray tan.
12.0		SAND	Net, no odor, pale tan.
12.0			·
14.0			
15.0			
16.0			
l E			
17.0			[[
18.0			
19.0] [
20.0			.
21.0			
22.0]]	į	
23.0			1 1
24.0			4
25.0			·
25.0			Figure 3-6

Figure 3-7

Soil E	Boring:	BW-2	Date Completed: 3/4/94	
Geolo	gist:	J.A.M.	Thomson Drilling Co.: Layne Environmental Services	<u>s_</u>
DEPTH	COLUEN	LETHOLOGY	DESCRIPTION	
0.0	: 1111111111111111111111111111111111111	BOLL	Contains grass and roots.	1
1.0	Tagara a	BOLL FLYY CLAY	Consists of limestone rock and asphalt. Fine to med. grained. Dark brown. Contains some	$\ $
2.0			roots, occasional black clay lenses. No odor.	
3.0		CLAY SILTY	Dark brown, mottled with yellow/brown. No odor.	
5.0			dare bradit, mottred detti dellabororadit. Na dadi .	
54.0				
. .0		SANO BILTY/CLAY	Fine to med. grained. Light tan, no odor.@ 9.2' Wet.@	
e.o		BILTY/CLAY	10' Light gray tan.	
9.0				
10.0				\parallel
12.0				
13.0				
14.0				
15.0				
17.0				
16.0				
19.0	l			П
20.0				H
21.0				
22.0				\parallel
24.0				
25.0			Figure 3-7	$\ $

Figure 3-8

Soil Boring: BW-3 Date Completed: 3/4/94

Geologist: J.A.M.Thomson Drilling Co.: Layne Environmental Services

Geologist:	J.A.M.	Inomson Drilling Co.: Layne Environmental Services
DEPTH COLUMN	LETHOLOGY	DESCRIPTION
	1	
 		
	SOLL	Contains shell fragments.
1.0	CLAY SILTY	Stiff, gray mottled with yellow/brown.
2.0		1
3.0		·
4.0		·
5.0		1 1
K.0	2933 S(LT	
7.0	SILT CLAYEY	
8.0		
9.0		
10.0	BAKO BILTY	Fine to medium grained. Light gray/tan.
11.0		
12.0		[[
13.0		
14.0		
15.0]
16.0		
17.0		
18.0		
19.0	1	
i i		
20.0		
21.0	1	
22.0		
23.0		[
it I		
21.0		
21.0 25.0		Figure 3-8

Figure 3-9

to to to to to to to

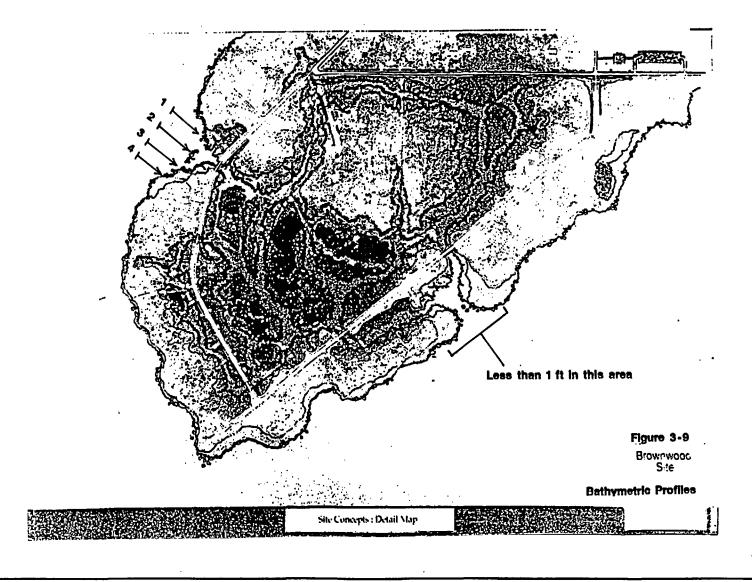
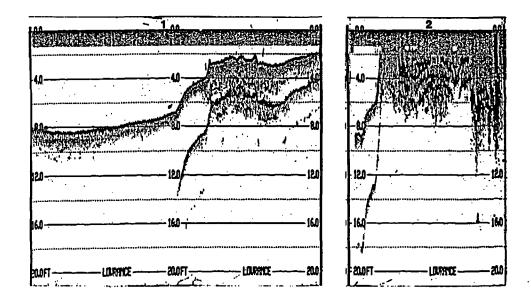


Figure 3-10

Figure 3-10
Brownwood Offshore Soundings

Profile	1,2
Time	
Bearing	

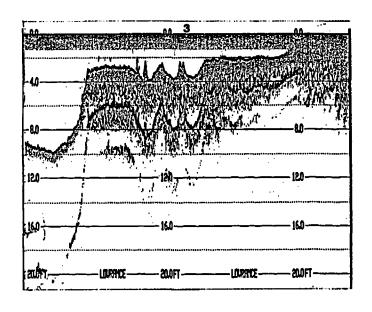


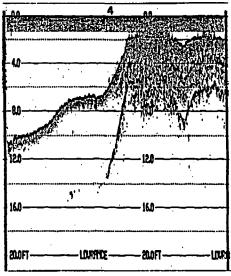
Soundings toward shore line; sounder 0.5 ft below WL; profiles terminated at 2 ft. depth

Figure 3-11

Figure 3-11
Brownwood Offshore Soundings

Profile 3,4
Time Bearing





Soundings toward shore line; sounder 0.5 ft below WL; profiles terminated at 2 ft. depth

French Ltd. Project

FLTG, Incorporated

3.7 Tidal Mixing Evaluation

Tidal mixing appears to be good between the East Pond and Crystal Bay. Field observations indicated significant water movement through the tidal gate and channel which connects the East Pond with Crystal Bay and the San Jacinto Estuary. There was no field evidence of tidal mixing with the Middle and West ponds and Crystal Bay: temperatures and specific conductance in these isolated ponds appears to be significantly higher. Hydraulic conductivities of subsurface material may be sufficient for tidal fluctuations to be observed in the isolated ponds but the time interval between tide peak and trough is too short to allow for tidal mixing through the subsurface.

WETLANDS ASSESSMENT
Hydrologic Evaluation - Brownwood Site

French Ltd. Project FLTG, Incorporated

APPENDIX A LABORATORY ANALYTICAL REPORTS

Sample No.	Sample Collected Date	Location
- S19A000301	3/03/94	North Area
- S19A000302	3/03/94	Central Area
- S19A000303	3/03/94	Perimeter
- S19A000304	3/03/94	West Pond
- S19A000305	3/03/94	East Pond
S19A000401	3/04/94	North Area
S19A000402	3/04/94	South Area
S19A000403	3/04/94	PL1-PL5
S19A000501	3/07/94	MPS-1
S19A000502	3/07/94	OS-1
- S19C000301	3/04/94	# 3
S19C000302	3/04/94	MP=3
- S19F000101	3/05/94	1-D
- S19F000102	3/05/94	1 - S
- S19F000103	3/05/94	2-C
- S19F000104	3/05/94	4-8
- S19F000105	3/05/94	5 - S
- S19F000106	3/05/94	6 - S
S19F000107	3/05/94	MP1
S19F000108	3/05/94	MP2

10+MR-1994

Summary of Amalytical Pessits

		51-006 X X 1994 3-1994 312 E194000303		0.25	0.25
4-8.5		S1-005 X 3-494-1994 819400302 FR		64.0	0.05
J. 194-03.51		51-004 OA CC 54:RR-1994 E19:00301 NS		* 011	& 6.
Ortoner: Time, Inc.		21-033 24-28-1934 21-3		8	GE. 0
		51-002 X 3-1938-1994 S19-10030		§.0	0. <u>15</u>
Date received: 4-492-1994	Samples	SI-COL CA CC FFRR-1999 IAB ERNY NA.		\$0.0 \$	89
becker			Units	gy/kg	gy/ga
Detre		Orester Tattlet, 10 Empliny Point. Date Sampled Oustoner, 10	Parameters	Total Organic Iblogers (Solid) Eralyst: RNS Date/Tilm: C3/07/94 10:00 Dilution: 1.0	Total Ret. Bythocarbons (Solid) mg/Rg Analyst: EII/133 Date/Time: (13/09/94 10:00 Dilution: 1.0

^{* - *} Recovery NR - Not Required NR - Not Applicable

10-1444-01

stilled leaklying to yamis

12.60-46H : emen dol.	Coetament Fille , INC.	1621-11211 :baylacer exact

51-008 3-1-008 5-1994 548-1994	1050001451 1661-1844-6	X S	Creater Leithet ID Samplay Point Date Sampled Creaters ID
0.8>	0,6≲	स्त्रीता हुई/दुवा	fates) erepoles observed (biles)
			Amilyac: RAS Date: 10:00 Date:
0*2≥	0,12	රින්/රික	(hite) exchancehyl dei fett Activis (1909) 10:00 (0:01 19(0) 10:00 (0:01 19(0) 10:00 (0:01 19(0) 10:00
			* ~ \$ Recovery M = Not Required M = Not Applicable

FRENCH LIMITED ID:7133286496 MAR 11'94 15:59 No.008 P.01

· 80631

INST ID: 4020

BAMPLE NUMBER: B19A000301

DRGANICE ANALYBIS DATA SHEET

BROWNWOOD

LANGRATORY NAME: CHESTER LABNET

NORTH AREA

LAS SAMPLE ID NO. : 940208102

SAMPLE MATRIX: SOIL

DATA RELEASE AUTHORIZED BY:.... DATE SAMPLE RECEIVED: 03/07/94

VOLATILEE

CONCENTRATION: LOW DATE ANALYZED: 03/11/94

DATAFILE: RU03051702 DILUTION FACTOR: 1.20

DETECTION AMDUNT LIMIT FOUND (MICROPRAME / KG) COMPOUND CO10 CHLOROMETHANE CO10 BROMOMETHANE CO20 VINYL CHLORIDE CO25 CHLOROETHANE 12 U 12 U 12 U 12 U CO30 METHYLENE CHLORIDE CO35 ACETONE
CO40 CARBON DIBULFIDE
CO45 1.1-DICHLORDETHENE
CO50 1.1-DICHLORDETHENE
CO53 1.2-DICHLORDETHENE (TOTAL) 12 U COAO CHLORDFORM COAS 1.2-DICHLORDETHANE C110 2-BUTANONE
C118 1.1.1-TRICHLORDETHANE
C120 CARBON TETRACHLORDETHANE
C128 VINYL ACETATE
C130 BROMODICHLORDMETHANE
C140 1.2-DICHLORDPROPANE
C143 C18-1.3-DICHLORDPROPENE
C150 TRICHLORDETHANE
C150 DIBROMOCHLORDMETHANE
C160 1.1.2-TRICHLORDETHANE
C160 BENIENE
C172 TRANE-1.8-DICHLORDPROPENE
C175 2-CHLORDETHYLVINYLETHER CIIO 2-BUTANDNE 12 U 4 U 12 U 6 U 6 U C175 R-CHLORDETHYLVINYLETHER CLGO BROMOFORM CROB 4-METHYL-2-PENTANONE CRIO M-HEXANDNE 12 U TETRACHLORDETHENE C220 1. 1. 2. 2-TETRACHLOROETHANE CPRE TOLUENE C230 CHLOROBENZENE C235 ETHYLBENZENE C240 C245 STYRENE

XYLENES (TOTAL)

CRRD

U . UNDETECTED AT THE LISTED DETECTION LIMIT

J - COMPOUND IS PRESENT, BUT BELOW THE LISTED DETECTION LIMIT

80632

INST ID: 4020

CHESTER DC # ---- B

SAMPLE NUMBER: B19A000302

DROANICS ANALYSIS DATA SMEET

BROWNWOOD CENTRAL AREA

LADDRATORY NAME: CHESTER LASNET

LAB SAMPLE ID NO.: 940305105

SOILS

CAMPLE MATRIX: BOIL

DATA RELEASE AUTHORIZED BY: DATE SAMPLE RECEIVED: 03/07/94

VOLATILES

CONCENTRATION: LOW

DATE ANALYZED: 03/11/94

DATAFILE: RU03051V05

		COMPOUND CHLOROMETHANE BROMOMETHANE BROMOMETHANE VINYL CHLORIDE CHLOROETHANE METHYLENE CHLORIDE ACETONE CARBON DIBULFIDE 1.1-DICHLOROETHENE 1.2-DICHLOROETHENE 1.2-DICHLOROETHENE 1.2-DICHLOROETHANE 2-BUTANONE 1.1.1-TRICHLOROETHANE CARBON TETRACHLORIDE VINYL ACETATE BROMODICHLOROMETHANE 1.2-DICHLOROFROPANE CIB-1.3-DICHLOROPROPENE TRICHLOROETHENE DIBROMOCHLOROMETHANE 1.1.2-TRICHLOROETHANE DIBROMOCHLOROMETHANE 1.1.2-TRICHLOROETHANE BENIRME TRANB-1.3-DICHLOROPROPENE 2-CHLOROETHYLVINYLETHER BROMOFORM 4-METHYL-2-PENTANONE 2-HEXANDNE TETRACHLOROETHANE 1.1.2.2-TETRACHLOROETHANE TOLUENE CHLOROBENZENE ETHYLBENZENE BTYRENE XYLENES (TOTAL)	DETECTION LIMIT (MICROQRAMB /	AMOUNT FOUND KG)
. <u></u>	C010	CHLOROMETHANE	12 U	
ļ	COIB	BROMOMETHANE	12 U	
	C020	VINYL CHLORIDE	1 <u>2</u> U	•
	COSB	CHLDROETHANE	12 V	
ŧ	CO30	METHYLENE CHLORIDE	<u> </u>	
	CO35	ACETONE	18 V	
•	C040	CARBON DIBULFIDE	ěΫ	
1	CO45	1. I-DICHLORDETHENE	6 U	
•	COAD	1. 1-DICHLORDETHANE	4 U	
	COSS	1.2-DICHLOROETHENE (TOTAL)	4 0	
	COPO	CHLORDFORM	4 U	
<i>i</i>	COAB	1, E-DICHLORGETHANE	4 U	
	C110	R-BUTANONE	15 Ñ	
	C115	1.1.1-TRICHLORDETHANE	6 Ų	
4	C120	CARBON TETRACHLORIDE	6 U	
<u>i</u>	C125	VINYL ACETATE	12 V	
	C130	Bromodichloromethane	e u	
•	C140	1. R-DICHLOROPROPANE	6 U	
•	C143	C18~1, 3-DICHLOROPROPENE	6 U	
á	C1BD	trichlordethene	6 U	
	Cibb	DIBROMOCHLOROMETHANE	6 U	
4	C160	1.1.R-TRICHLORDETHANE	6 U	
1	CIGR	Denzrne	6 U	
	C172	Trans-1.3-Dickloropropene	6 V	
	C175	e-chlordethyly in ylether	12 U	
ì	Ciao	Bromoform	6 V	
<u>.</u>	C205	4-METHYL-Q-PENTANONE	12 U	
	C210	R-HEXANDNE	12 V	
4	CREO	TETRACHLORDETHENE	6 U	
ا	CESP	1.1.2.2-TETRACHLOROETHANE	6 U	
	C530	TOLUENE	6 U	
	C235	CHLOROBENZENE	6 U	
	C240	ETHYLBENZENE	& U	
	CR45	STYRENE	6 U	
	CREO	XYLENES (TOTAL)	6 U	

U = UNDETECTED AT THE LIBTED DETECTION LIMIT

J . COMPOUND IS PRESENT, BUT BELOW THE LISTED DETECTION LIMIT

MAR 11'94 16:02 No.CO8 P.O3

FRENCH LIMITED ID:7133286496

·80633

INET 1D: 4020

CHESTER DC # ---- B

BAMPLE NUMBER: B17AD00303

GROANICE ANALYSIS DATA SHEET

BROWN WOOD PERIMETER AREA

LABORATORY NAME: CHEETER LABORET

LAB BAMPLE ID NO. : 940308106 BAMPLE MATRIX: SOIL

SOILS

DATA RELEASE AUTHORIZED BY:..... DATE SAMPLE RECEIVED: 03/07/94

VOLATILEB

CONCENTRATION: LOW

1.1

DATAFILE: RU03051V06 DILUTION FACTOR: 1.20

) DATE ANALYZED: 03/11/94

-		COMPOUND CHLORDMETHANE BROMOMETHANE VINYL CHLORIDE CHLOROETHANE METHYLENE CHLORIDE ACETONE GARBON DIBULFIDE 1,1-DICHLORDETHENE 1,2-DICHLORDETHENE 1,2-DICHLORDETHANE CHLOROFORM 1,2-DICHLORDETHANE CHLOROFORM 1,1,1-TRICHLORDETHANE CARBON TETRACHLORIDE VINYL ACETATE BROMODICHLOROMETHANE 1,2-DICHLOROMETHANE 1,2-DICHLOROMETHANE 1,1,2-TRICHLORDETHANE 1,1,2-TRICHLORDETHANE 1,1,2-TRICHLORDETHANE 1,1,2-TRICHLORDETHANE 1,1,2-TRICHLORDETHANE 1,1,2-TRICHLORDETHANE 1,1,2-TRICHLORDETHANE 1,1,2-TRICHLORDETHANE 1,1,2-TRICHLORDETHANE CHLOROETHYLVINYLETHER BROMOFORM 4-METHYL-2-PENTANDNE 2-HEXANDNE TETRACHLOROETHENE 1,1,2,2-TETRACHLOROETHANE TOLUENE CHLOROBENZENE ETHYLDENZENE ETHYLDENZENE ETYRENE KYLENEB (TOTAL)	DETECTION AMOU LIMIT FOUL (MICROGRAMS / KG)	TNT ND
 !	C010	CHLORDMETHANE	12 U	
	COTO	OTALL CLAME	12 U	
	0025	CUI FIDETUANE	18 U	
	0030	METHVIENE CHI ODIDE	4 11	
<u> </u>	COSS	ACETONE	12 U	
	C040	CARBON DIBULFIDE	์ นี้	
1	C045	1,1-DICHLORDETHENE	ě Ŭ	
4	COSD	1,1-DICHLORDETHANE	ลี บั	
_	CO\$3	1,2-DICHLORDETHENE (TOTAL)	6 U	
١	0040	CHLOROFORM	6 U	
1	C065	1.2-Dichloroethane	6 U	
_	CIIO	R-BUTANDNE	12 U	
	C115	1, 1, 1-TRICHLORGETHANE	6 U	
	C120	CARBON TETRACHLORIDE	& U	
	CIRO	VINYL ACETATE	12 U	
	C130	DRUMUDICHLURUMETHANE	6 U	
1	6140	ATC	5 V	
Ľ	0150	TRICUI NACETURNE	Y 11	
_	C165	DIBROMOCH GROMPTHANK	ŭ Å	
	C160	1.1.2-TRICH GROETHANE	ŭ Å	
1	C165	BENZENE	ěŭ	
_	C172	TRANS-1.3-DICHLOROPROPENE	ž ŭ	
	C175	2-CHLDROETHYLVINYLETHER	12 Ú	
	C180	BROMOFORM	6 U	
Ü	CROS	4-METHYL-2-PENTANDNE	12 V	
	C210	2-HEXANDNE	12 U	
1 .	CAND	TETRACHLOROETHENE	6 U	
	CESS	1, 1, 2, 2-TETRACHLOROETHANE	é V	
_	6530	TOLUENE	6 U	
	CRES	CHLOROSENZENE	6· U	
	0240 0540	e interecte Carrete	0 V 4 H	
نه	CORD	YVLENES (TOTAL)	6 U	
		······································	₩ ♥	

U - UNDETECTED AT THE LISTED DETECTION LIMIT

J = COMPOUND IS PRESENT, BUT BELOW THE LISTED DETECTION LIMIT

80634

INBT 10: 4020

CHESTER DC # ---- to

BAMFLE NUMBER: 817A000304

DROANICS ANALYBIB DATA BHEET

BROWNWOOD WEST POND SEDMONTS

LABORATORY NAME: CHESTER LABNET LAB BAMPLE ID ND.: 940305107

BAMPLE MATRIX: SOIL

DATA RELEASE AUTHORIZED BY:..... DATE SAMPLE RECEIVED: 03/07/94

VOLATILES

CONCENTRATION: LOW

DATE ANALYZED: 03/11/94

DATAFILE: RU03051V07

		CHLOROMETHANE BROMOMETHANE VINYL CHLORIDE CHLOROETHANE METHYLENE CHLORIDE ACETONE CARBON DIBULFIDE 1.1-DICHLORDETHENE 1.2-DICHLORDETHENE 1.2-DICHLORDETHANE 1.2-DICHLORDETHANE 2-BUTANONE 1.1.1-TRICHLORDETHANE CARBON TETRACHLORIDE VINYL ACETATE BROMODICHLOROMETHANE 1.2-DICHLOROPROPENE TRICHLOROETHANE 1.1.2-TRICHLOROETHANE 1.2-CHLOROETHYLVINYLETHER 1.2-CHLOROETHYLVINYLETHER 1.3-CHLOROETHYLVINYLETHER	DETECTION LIMIT (MICROGRAMS /	AMDUNT FOUND KO)
	CO10	CHLOROMETHANE	13 U .	
-	. 0015	BROMOMETHANE	13 U	
	C030	VINYL CHLORIDE	13 U	
ل	CORE	CHLORDETHANE	13 U	
ال	C030	METHYLENE CHLORIDE	<u>,</u> & U	
_	6035	ACETONE	13	24
,	CQ4D	CARBON DIBULFIDE	8 U	
	CO45	I. I-DICHLORDETHENE	6 U	
<u></u>	COPD	1,1-DICHLORDETHANE	9 N	
	C023	1.2-DICHLORDETHENE (TOTAL)	6 U	
•	C090	CHLOROFORM	ΑÜ	
) J	C065	1,2-DICHLORDETHANE	6 U	
	C110	2-BUTANUNE	13 ក	
	C115	1, 1, 1-TRICHLORDETHANE	6 U	
ì	C120	CARBON TETRACHLORIDE	6 U	
<u>j</u>	C125	VINYL ACETATE	13 V	
	C130	BROMDDICHLORDMETHANE	4 U	
	C140	1.2-DICHLORDPROPANE	e u	
	C143	CIB-1.3-DICHLORDPROPENE	e u	
-1	C180	TRICHLORDETHENE	6 V	
	C155	DIBRUMOCHLOROMETHANE	6 U	
	C160	1.1.2-TRICHLORDETHANE	6 U	
	CIAS	BENZENE	6 U	
_	C17R	Trans-1,3-Dichloropropene	6 U	
	C175	2-CHLORDETHYLVINYLETHER	13 U	
` پ	CIBO	BROMOFORM	6 U	
_	CZOS	4-METHYL-2-PENTANONE	19 U	
	C210	2-HEXANDNE	13 U	
	C\$30	TETRACHLORDETHENE	6 U	
1	CZZS	1.1.2-TRICHLORDETHANE BENZENE TRANS-1.3-DICHLOROPROPENE 2-CHLOROETHYLVINYLETHER BROMOFORM 4-METHYL-2-PENTANONE 2-HEXANONE TETRACHLOROETHANE 1.1.2.2-TETRACHLOROETHANE TOLUENE CHLOROBENZENE ETHYLDENZENE	6 U	
	CSGO	TOLUENE	6 U	
	C235	CHLORDBENZENE	6 U	
	C240	ETHYLDENZENE	ě V	
<u>ا</u>	C245	BTYKENE	6 U	
	C280	XYLENES (TOTAL)	6 U	

U - UNDETECTED AT THE LIETED DETECTION LIMIT

J - COMPOUND IS PREBENT, BUT BELOW THE LIBTED DETECTION LIMIT

MAR 11'94 16:05 No.008 P.05

ID:7133286496

FRENCH LIMITED

-80635

■ INST ID: 4020

CHESTER DC # ---- 8

BAMPLE NUMBER: B19A000305

DROANICS ANALYSIS DATA SHEET

BROWNWOOD

EAST POND

SEDIMENTS

LABORATORY NAME: CHESTER LABNET LAB BAMPLE ID NO.: 940305108

-Bample Matrix: 801L

DATA RELEASE AUTHORIZED BY:..... DATE SAMPLE RECEIVED: 03/07/94

VOLATILES

CONCENTRATION: LOW

DATE ANALYZED: 03/11/94

DATAFILE: RU03051V08

Li		COMPOUND CHLOROMETHANE BROMOMETHANE VINYL CHLORIDE CHLOROETHANE METHYLENE CHLORIDE ACETONE CARBON DIBULPIDE 1.1-DICHLOROETHENE 1.2-DICHLOROETHENE 1.2-DICHLOROETHENE 1.2-DICHLOROETHANE 2-BUTANONE 1.1.1-TRICHLOROETHANE CARBON TETRACHLORIDE VINYL ACETATE BROMODICHLOROMETHANE 1.2-DICHLOROPROPENE TRICHLOROETHENE DIBROMOCHLOROMETHANE 1.1.2-TRICHLOROETHANE 1.1.2-TRICHLOROETHANE 2-CHLOROETHYLVINYLETHER BROMOFORM 4-METHYL-2-PENTANONE 2-HEXANONE TETRACHLOROETHENE 1.1.2.2-TETRACHLOROETHANE 1.1.2.2-TETRACHLOROETHANE CHLOROBENZENE TOLUENE CHLOROBENZENE ETHYLBENZENE BTYRENE XYLENEB (TOTAL)	DETECTION LIMIT (MICROGRAMS /	AMOUNT FOUND KG)
	C010	CHLOROMETHANE	13 U	
	6020	VINVI. CUI ORTSP	13 U	
	COSS	CHLORDETHANE	13 Ŭ	•
	COSO	METHYLENE CHLORIDE	ě Ů	
	COBB	ACETONE	13	. 6J
^ /	G040	CARBON DIBULFIDE	6 V	
L	C045	1.1-DICHLORDETHENE	6 U	
	COSO	1.1-DICHLOROETHANE	6 U	
1	COSE	1.2-DICHLORDETHENE (TOTAL)	6 U	
	0960	CHLOROFORM	e u	
	COFP	1. R-DICHLORDETHANE	6 U	
1	CIIO	Z-BUTANONE	13 U	
L	C115	1, 1, 1-TRICHLORDETHANE	6 U	
<u>. Li</u>	0120	URROUN TETRACHLUKIDE	6 V	
	0120	VANTE NEELNE BROWNTON BROWETHAND	13 V	
1	0140	4. S. htou ababane	& U	
i.	0145	ATEMANDUM PROPERTY AND A STREET	4 11	
	C150	TRICH CONTRACTOR	2 1	
	C155	DIBROMOCHLOROMETHANE	λŭ	
	C140	1, 1, 9-TRICHLORDETHANE	2 Ŭ	
	C165	BENZENE	ខ ប៉	
1:	C172	TRANS-1.3-DICHLOROPROPENE	ĜŪ	
	C175	2-CHLOROETHYLVINYLETHER	13 U	
_	C180	Brohoporm	6 U	
1	CPOS	4-METHYL-R-PENTANONE	13 U	
	CSTO	2-HEXANONE	រន្ធ ប្ត	
	CERO	TETRACHLORDETHENE	ęυ	
•	CERS	1, 1, 2, R-TETRACHLORDETHANE	6 U	
11	C530	TOLUENE	6 U	
	CESS	CHUNGSENZENE	6 U	
	OR4U	BTYRENE BTYRENE	8 U	
	C250	XYLENER (TOTAL)	6 U	

J = UNDETECTED AT THE LISTED DETECTION LIMIT

⁻ COMPOUND IS PRESENT, BUT BELOW THE LISTED DETECTION LIMIT

Chester LabNet - HOUSTON

Reported on : 14-WAR-1994

Client Name: FRENCH LIMITED Work Order: H94-03.51 Sample ID: CAPO310 040 Date Collected: 03-MAR-1994

Sample Name: H94-03.51-002 Matrix : SOIL

Project No.: \$19A Date Received : U4-MAR-1994
Percent Moisture : 19 % Date Extracted : 11-MAR-1994

· Client ID : 819A0003 01 Cnecked by : MJM

Organic Analysis Data Sheet Compounds Analysis by SW846 Nethod 8080

Date Analyzed: 12-MAR-1994 10:10 Dilution Factor: 1.000

			Detected
Cas #	Compound	Limits	Cona. ug/kg
309-00-2	ALDRIN-	1.7	1.7 U
319-84-6	ALPHA-BHC	0.42	0.42 U
319-85-7	BETA-BHC	1.2	1.2 U
319-86-8	DELTA-BHC	1.2	1.2 U
58-89-9	GAMMA-BHC/LINDANE	1.2	1.2 U
57-74-9	CHLORDANE	5.8	21
72-54 - 8	4,4'-DDD	2.1	2.1 U
72-55-9	4,4'-DDE	1.2	13
50-29-3	4,4'-DDT	5.0	5.0 U
60-57-1	DIELDRIN	0.83	3.6
959-98-8	endosulfan i	8.3	8.3 U
33213-65-9	endosulfan II	8.3	8.3 U
1031-07-8	ENDOSULFAN SULFATE	4.2	4.7 U
72-20-8	ENDRIN	2.5	2.5 U
7421-93-4	ENDRIN ALDEHYDE	4.2	4.2 U
76-44-8	HEPTACHLOR	1.2	1.2 U
1024-57-3	HEPTACHLOR EPOXIDE	2.1	2.1 U
72-43-5	METHOXYCHLOR	21	21 U
8001-35-2	TOXAPHENE	100	100 U
12674-11-2	AROCLOR-1016	21	21 U
11104-28-2	AROCLOR-1221	21	21 U
11141-16-5	Aroclor-1232	21	21 U
53469-21-9	Aroclor-1242	21	21 U
12672-29-6	AROCLOR-1248	21	21 U
11097-69-1	Aroclor-1254	21	21 U
11096-82-5	AROCLOR-1260	21	21 ប

U = Undetected at the Listed Detection Limit .

J - Compound is present, but below the Detection Limit.

B = Compound is also found in Blank.

Chester LabNet - HOUSTON

Reported on : 14-MAR-1994

Client Name : FRENCH LIMITED Work Order : H94-03.51 Sample ID : CAPO310-046 Date Collected : 03-MAR-1994 Sample Name : H94-03.51-005 Matrix : SOIL Project No. : 519A Date Received : 04-HAR-1994 Percent Moisture : 16 % Date Extracted : 11-MAR-1994 Client ID : 819A0003 Q2 checked by : MTM

Organic Analysis Data Sheet Compounds Analysis by SW846 Method 8080

Date Analyzed : 12-MAR-1994 08:37 Dilution Factor : 1.000 Analyzed by : 8388657

6 m H			Detected	
Cas #	Compound	Limits	Cona. ug/kg	
309-00-2	ALDRIN	1.6	1.6 U	
319-84-6	ALPHA-BHC	0.40	0.40 U	
319-85-7	BETA-BHC	1.2	1.2 U	
319-86-8	DELTA-BHC	1.2	1.2 U	
58-69-9	GAMMA-BHC/LINDANE	1.2	1.2 U	
57-74-9	CHLORDANE	5.6	5.6 U	
72-54-8	4 . 4 ' - DDD	2.0	2.0 11	
72-55-9	4,4'-DDE	1.2	1.2 U	
50-29-3	4,4'-DDT	4.8	4.8 U	
60-57-1	DIELDRIN	0.60	0.80 U	
959-98-8	ENDOSULFAN T	8.0	8.0 U	
33213-65-9	endosulfan II	8.0	8.0 U	
1031-07-A	endosulfan sulfate	4.0	4.0 U	
72-20-8	ENDRIN	2.4	2.4 U	
7421-93-4	ENDRIK ALDEHYDE	4.0	4.0 U	
76-44-8	HEPTACHLOR	1.2	1.2 U	
1024-57-3	HEPTACHLOR EPOXIDE	2,0	2.0 U	
72-43-5	KETHOXYCHLOR	20	20 U	
8001-35-2	TOXAPHENE	96	96 U	
12674-11-2	ABOCLOR-1016	20	20 U	
11104-28-2	AROCLOR 1221	20	20 U	
11141-16-5	AROCLOR-1232	20	20 U	
53469-21-9	AROCLOR-1242	20	20 U	
12672-29-6	AROCLOR-1248	20	20 U	
11097 69-1	AROCLOR-1254	20	20 U	
11096-82-5	AROCLOR-1260	20	20 U	

U = Undetected at the Listed Detection Limit .

J = Compound is present, but below the Detection Limit.

B = Compound is also found in Blank.

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Chaster Labbet - HOUSTON

Reported on : 9-MAR-1994

Client Name: FRENCH LINITED Work Order: H94-03.51
Sample ID: CBP0307-034 Date Collected: 03-MAR-1994
Eamplo Name: H94-03.51-005 Metrix: 50IL
Project No.: 519A Date Received: 04-MAR-1994
Client ID: 519A0003 02 Date Extracted: 07-MAR-1994
Checked by: M7M

Organic Analysis Data Sheat Compounds Analysis by SW846 Nethod 8080

Date Analyzed: 6-MAR-1994 15:35 Dilution Factor: 1.000

Cas #	Cas # Compound		Detection Limits	Detected Conc. ug/kg	
12674-11-2	AROCLOR-1016	20	20	ū	
11104-28-2	AROCLOR-1221	20	20	ប	
11141-16-5	AROCLOR-1232	20	20	U	
53469-21-9	AROCLOR-1242	20	20	u	
12672-29-6	AROCLOR-1248	20	20	U	
11097-69-1	AROCLOR-1254	20	20	t	
11096-82-5	AROCLOR-1260	20	20	U	
	TOTAL PCBS *	20	20	U	

- * = Total PCBs calculated as found AR 1242.
- U = Undetected at the Listed Detection Limit .
- J = Compound is present, but below the Detection Limit.
- B = Compound is also found in Blank.

Chester LabNet - HOUSTON

Reported on: 14-MAR-1994

Client Name: FRENCH LIMITED Work Order: H94-03.51
Sample 1D: CAPUSIU-047 Date Collected: 03-MAR-1994
Sample Hame: H94-03.51-006 Natrix: SOIL
Project No.: SIVA Date Received: 04-MAR-1994
Percent Moisture: 1 19 % Date Extracted: 11-MAR-1994

Client ID : S19A0003 03 Checked by : MDM

Organic Analysis Data Sheet Compounds Analysis by SW846 Nathod 8080

Date Analysed: 12-NAR-1994 09:24 Dilution Factor: 1.000

Ø #		Detection	Detected		
Cas #	Compound	Limits	Conc. ug/kg		
309-00-2	ALDRIE	1.7	1.7 บ		
319-84-6	ALPHA-BHC	0.42	0.42 U		
319-85-7	BETA-BHC	1.2	1.2 U		
319-86-8	DELTA-BHC	1.2	1.2 U		
58-89-9	GAMMA-BHC/LINDANE	1.2	1.2 U		
57-74-9	CHLORDANE	5.6	5.8 U		
72-54-8	4,4'-DDD	2.1	2.j U		
72-55-9	4,4'-DDE	1.2	13		
50-29-3	4,4'-DDT	5.0	5.0 U		
60-57-1	DIELDRIN	0.63	0.83 U		
959-98-8	endogulpan i	8.3	8.3 U		
33213-65-9	endosulfan 11	8.3	8.3 V		
1031-07-8	endosulfan sulfate	4.2	4.2 U		
72-20-8	ENDRIN	2.5	2.5 U		
7421-93-4	ENDRIN ALDENYDE	4.2	1.2 U		
76-44-8	HEPTACHLOR	1.2	1.2 V		
1024-57-3	HEPTACHLOR EPOXIDE	2.1	2.1 U		
72-43-5	NETHOXYCHLOR	21	21 U		
6001-35-2	Toxaphene	100	100 U		
12674-11-2	AROCLOR-1016	21	21 U		
11104-28-2	AROCLOR-1221	21	21 U		
11141-16-5	AROCLOR-1232	21	21 U		
53469-21-9	AROCLOR-1242	21	21 U		
12672-29-6	AROCLOR-1248	21	21 ซ		
11097-69-1	AROCLOR-1254	21	21 V		
11096-82-5	AROCLOR-1260	21	21 Ü		

U = Undetected at the Listed Detection Limit .

J = Compound is present, but below the Detection Limit.

B = Compound is also found in Blank.

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Chester Labbet - HOUSTON

Reported on : 9-MAR-1994

Client Name: FRENCH LINITED Work Order: 194-03.51
Sample ID: CBP0307-035 Date Collected: 03-NAR-1994
Sample Name: H94-03.51-006 Hatrix: 50IL
Project No.: \$19A Date Received: 04-MAR-1994
Client ID: \$19A0003 03 Date Extracted: 07-KAR-1994

Checked by 1 M5 M

Organic Analysis Data Sheet Compounds Analysis by SW646 Nethod 8080

Date Analyzed: 8-MAR-1994 16:22 Dilution Factor: 1.000

Analyzed by : 8388657

Cas #	s # Compound		Detected Conc. ug/kg		
12674-11-2	AROCLOR-1016	21	21	U	
11104-28-2	AROCLOR-1221	21	21	U	
11141-16-5	AROCLOR-1232	21	21	u	
53469-21-9	AROCLOR-1242	21	21	U	
12672-29-6	AROCLOR-1248	21	21	Ü	
11097-69-1	AROCLOR-1254	21	21	U	
11096-82-5	AROCLOR-1260	21	21	Ū	
	TOTAL PCBS *	21	21	U	

* = Total PCBs calculated as found AR 1242.

U = Undetected at the Listed Detection Limit .

J = Compound is present, but below the Detection Limit.

B = Compound is also found in Blank.

Chester LabNet - HOUSTON

Reported on : 14-MAR-1994

Work Order : H94-03.51 Date Collected : 03-MAR-1994 Client Name: FRENCH LIMITED Sample ID : CAF0310-053 Sample Name : H94-03.51-007 Matrix : SOIL
Date Received : 04-MAR-1994
Date Extracted : 11-MAR-1994 Matrix Project No. : 819A

Percent Noisture : 23 % * 47p checked by Client ID : 519A0003 04

Organic Analysis Data Sheet Compounds Analysis by SW846 Method 8080

Date Analysed : 12-MAR-1994 14:03 Dilution Factor : 1.000

		Detection	Detected		
Cas #	Compound	Limits	Conc. ug/kg		
309-00-2	ALDRIN	1.7	1.7 U		
319-84-6	ALPHA-BHC	0.44	0.44 U		
319-85-7	BETA-BHC	i.3	1.3 V		
319-86-8	DELTA-BHC	1.3	1.3 U		
58-89-9	GAMNA-BHC/LINDANE	1.3	1.3 V		
57-74-9	CHLORDANE	6.1	6.1 U		
72-54-8	4.4'-DDD	2.2	2.2 U		
72-55-9	4,4'-DDE	1.3	1.3 U		
50-29-3	4.4'-DDT	5.2	5.2 11		
60-57-1	DIELDRIN	0.87	0.87 U		
959-98-8	ENDOSULFAN I	8.7	8.7 U		
33213-65-9	ENDOSULFAN II	8.7	8.7 ช		
1031-07-8	ENDOSULFAN SULFATE	4.4	4.4 U		
72-20-8	ENDRIN	2.6	2.6 U		
7421-93-4	ENDRIE ALDEHYDE	1.1	4.4 U		
76-44-8	HEPTACHLOR	1.3	1.3 U		
1024-57-3	EEPTACHLOR EPOXIDE	2.2	2.2 U		
72-43-5	METHOXYCHLOR	22	22 U		
8001-35-2	TOXAPHENE	110	110 V		
12674-11-2	AROCLOR-1016	22	22 U		
11104-28 2	AROCLOR-1221	22	22 U		
11141-16-5	AROCLOR-1232	22	22 U		
53469-21-9	AROCLOR-1242	22	22 U		
12672-29-6	AROCLOR-1246	22	22 U		
11097-69-1	AROCLOR-1254	22	22 U		
11096-82-5	AROCLOR-1260	22	22 V		

U = Undetected at the Listed Detection Limit .

J = Compound is present, but below the Detection Limit.

B = Compound is also found in Blank.

Chaster Labbet - HOUSTON

Reported on : 9-MAR-1994

Client Name : FRENCH LIMITED Work Order : H94-03.51 .Sample ID : CBP0307-036 Date Collected : 03-MAR-1994 Sample Name : H94-03.51-007 Katrix : SOIL Project No. : S19A Date Received : 04-MAR-1994 Client ID : 819A0003 04 Date Extracted : 07-MAR-1994 Checked by * MIM

Organic Analysis Data Sheet Compounds Analysis by 58846 Method 5050

Date Analyzed: 8-MAR-1994 17:08 Dilution Factor: 1.000

Cas #	Compound	Detection Limits	Datected Conc. ug/kg		
12674-11-2	AROCLOR-1016	22	22	נו	
11104-28-2	AROCLOR-1221	22	22	u	
11141-16-5	AROCLOR-1232	22	22	U	
53469-21-9	AROCLOR-1242	22	22	U	
12672-29-6	AROCLOR-1248	22	22	U	
11097-69-1	AROCLOR-1254	22	22	ช	
11096-82-5	AROCLOR-1260	22	22	Ŭ	
	TOTAL PCBS *	22	22	U	

- # = Total PCBs calculated as found AR 1242.
 U = Undetected at the Listed Detection Limit .
- J = Compound is present, but below the Detection Limit.
- B = Compound is also found in Blank.

Chester LabNet - HOUSTON

Reported on : 14-MAR-1994

Client Name : FRENCH LIMITED Work Order : H94-03.51 Sample ID : CAPO310-052 Date Collected : 03-MAR-1994 Sample Name : H94-03.51-008 : SOIL Matrix : 04-MAR-1994 Date Received Project No. : 519A Date Extracted : 11-MAR-1994 . Percent Moisture : 22 % : MTM Client ID : S19A0003 U5 Checked by

> Organic Analysis Data Sheet Compounds Analysis by SW846 Method 8080

Date Analyzed: 12-WAR-1994 13:16 Dilution Factor: 1.000

Cas #	Compound	Detection Limits	Detected Conc. ug/kg
309-00-2	ALDRIN	1.7	1.7 U
319-84-6	ALPHA-BHC	0.43	0.43 U
319-85-7	BETA-BHC	1.3	1.3 U
319-86-8	DELTA-BHC	1.3	1.3 U
58-89-9	GAMMA-BHC/LINDANE	1.3	1.3 U
57-74-9	CHLORDANE	6.0	6.0 U
72-54-8	4,4'-DDD	2.1	2.1 U
72-55-9	4,4'-DDE	1.3	1.3 U
50-29-3	4,4'-DDT	5.1	5.1 U
60-57-1	DIELDRIN	0.86	0.86 U
959-98-8	endosulfan i	8.6	8.6 V
33213-65-9	ENDOSULFAN II	8.6	8.6 ป
1031-07-8	ENDOSULFAN SULFATE	4.3	4.3 U
72-20-8	ENDRIN	2.6	2.6 U
7421-93-4	ENDRIN ALDERYDE	4.3	1.3 U
76-44-B	HEPTACHLOR	1.3	1.3 U
1024-57-3	HEPTACHLOR EPOXIDE	2.1	2.1 U
72-43-5	NETHOXYCHLOR	21	21 U
6001-35-2	TOXAPHENE	100	100 U
12674-11-2	AROCLOR-1016	21	21 U
11104-28-2	AROCLOR-1221	21	21 U
11141-16-5	AROCLOR-1232	21	21 Y
53469-21-9	AROCLOR-1242	21	21 U
12672-29-6	AROCLOR-1248	21	21 U
11097-69-1	AROCLOR-1254	21	2 1 v
11096-82-5	AROCLOR-1260	21	21 U

U = Undetected at the Listed Detection Limit .

J = Compound is present, but below the Detection Limit.

B = Compound is also found in Blank.

Chester LabNet ~ HOUSTON

Reported on : 9-MAR-1994

Client Name: FRENCH LIMITED Work Order: H94-03.51
Sample ID: CBP0307-037 Date Collected: 03-MAR-1994
Sample Hame: H94-03.51-008 Matrix: 50IL
Project No.: S19A Date Received: 04-MAR-1994
Client ID: S19A0003 05 Date Extracted: 07-MAR-1994
Checked by: M7M

Organic Analysis Data Sheet Compounds Analysis by SW646 Method 8080

Date Analyzed : 8-MAR-1994 17:55 Dilution Factor : 1.000

		Detection	Detected		
Cas #	Compound	Limits	Conc.	ug/kg	
12674-11-2	AROCLOR-1016	21	21	U	
11104-28-2	AROCLOR-1221	21	21	ช	
11141-16-5	AROCLOR-1232	21	21	u	
53469-21-9	AROCLOR-1242	21	21	ซ	
12672-29-6	AROCLOR-1248	21	21	U	
11097-69-1	AROCLOR-1254	21	21	ប	
11096-82-5	AROCLOR-1260	21	21	U	
	TOTAL PCBS *	21	21	บ	

- * = Total PCBs calculated as found AR 1242.
- U = Undetected at the Listed Detection Limit .
- J = Compound is present, but below the Detection Limit.
- B = Compound is also found in Blank.

•		U.S. 1	EPA - CLP				
		INORGANIC A	1 Nalysie data s	HEE.	т	EPA SAME	
Lab Name: CH	ESTER LABNET	-HOUSTON	Contract:			1	
Lab Code: K	EYTX Ca	88 No.: \$19	A SAS No.:			SDG No.:	
latrix (soil	/water): soI	L		Lab	Samp	le ID: 9403	51002
Level (low/m	ned): LOW	•		Dat	e Rec	eived: 03/0	4/94
₩ Solids:	80.	•					
. 1	Concentrati	on Units (u	g/L or mg/kg d	TY	weigh	t); MG/KG	
<u>.</u> .			<u> </u>	1 1			•
F 1	CAS No.	Analyte	Concentration	c	Q	М	
<u>'</u>	7429-90-5	Aluminum	5540.00	¦-!		~ p -	
-		Antimony_	7,00	ίυ¦		P	
<i>(</i>	7440-38-2		5.40		SN	F	
· •	7440-39-3		25.00	В	•	Р	
•	7440-41-7		0.25	Ü		P	
	7440-43-9		1.20	IV		P	
	7440-70-2	Calcium_!	1300.00] [P	
₩	7440-47-3	Chromium_	8.00	i		P	
	7440-48-4		2.10	8		ip i	
i	7440-50-8		15.10	1 1		P	
<u></u>	7439-89-6		4320.00	i i		P	
_	7439-92-1		45.00			if i	
		Magnesium	656.00	B		P	
t .	7439-96-5	Manganese	80.80	1 1		1 P	
┵	17439-97-6	Morcury!	0.13	IU	*	CV	
	7440-02-0	Nickel	6.70	18:		P	
;	7440 09 7		200.00	U		IP	
, 	7782-49-2	Selenium_;	0.25	¦υ¦		¦F	
	7440-22-4	Silver	0.75	IUI		IP !	
	7440-23-5	Sodium	1010.00	¦B;		P	
-		Thallium_	0.75	U		ir i	
J		Vanadium_	12.80	1 1		P	
	7440-66-6		32.20	1 1	E	P	•
<u> </u>		Cyanide				NR .	
olor Before:	DK.GRAY	Clarity	Before:			[exture:	COARSE
: Molor After:	COLORLESS	Clarity	After:			Artifects	:

. ,	plor	Betore:	CK.GRAY	Clarity	Before:	[exture:	COARS
٠	olor	After:	COLORLESS	Clarity	After:	Artifacts:	
. 1	ommer	nts:					
_							
:							

U.S. EPA - CLP

			EPH - CLP					
			1			EPA	SAMP	LE NO
		INORGANIC A	ANALYSIS DATA S	HEE	T	!		
							0003	02
Lab Name: CHE	STER LABNET	- HOUSTON	Contract:			·		
Lat Code: KE	YTX Ca	se No.: 519	9A SAS No.:			SDG	No.:	
Mat:ix (soil/	water): 501	L.	1	Lab	Samp	le ID:	9403	51005
_evel (low/me	d): Low			Dat	e Rec	eived	03/0	4/94
: Solids:	83.	3						
	Concentrati	on Units (:	ug/L or mg/kg d	ry 1	weigh	it): MG	/KG	
	-	1		1 !			•	
	CAS No.	Analyte	Concentration	c	Q	м		
	7429-90-5	Aluminum	3600.00	!-!		- -		
	7440-36-0	Antimony		U		Р		
	7440-38-2			8	+N	F		
	7440-39-3	Barium	22.20	B		P		
	7440-41-7			iul		ip i		
	7440-43-9			ļų!		IP I	-	
	17440-70-2			181		IP 1		
	7440-47-3			1 1		IP I	•	
	17440-48-4	Cobalt	2.00	B		IP !		
	7440-50-8	Copper	3.20	;B;		iP i		
	7439-89-6		4860.00	1 !		¦P ¦		
	7439-92-1	Lead	11.10	1 1		if !		
	7439-95-4			B;		;P		
	7439-96-5	Manganese	103.00	1 1		¦₽ ¦		
	7439-97-6		0.12	lu:	*	CV		
	7440-02-0		4.60	101		¦P ¦		
	7440-09-7			U		P		
•	7782-49-2	Selenium_	0.24	10;		F		
	7440-22-4	SILver	0.72	U		P		
	7440-23-5	Sodium	229.00	B	Ε	Р		
	7440-28-0	Thallium_	0.72	101		F		
	7440-62-2	'Vanadium_	10.80	B		P		
	7440-66-6		15.80	1 1	E	ان ا		
		Cyanide				NR		
olor Sefore:	DK .GRAY	Clarit	y Sefore:	 •		Texti	ire:	COAR
olor After:	COLORLESS	Clarit;	y After:			Artii	acts	
omments:								

FORM I - IN

U.S. EPA - CLP

Ü		INORGANIC A	1 . Nalysis data si	HEE.	Τ		MPLE NO.
Lab Name: CH	ESTER LABNET	-HOUSTON	Contract:				
Lab Code: K	EYTX Ca	se No.: \$19	A SAS No.:			SDG No.	. •
latrix (soil	/water): SOI	L	I	Lab	Samp	le ID: 94	0351006
Level (low/m	ed): LOW			Dat	e Rec	eived: 03	/04/94
: Solids:	80.	6					
\	Concentrati	on Units (u	g/L or mg/kg d	ТУ	weigh	t): MG/KG	i
.	CAS No.	Analyte	Concentration	c	Q	М	
	7429-90-5 7440-36-0	Aluminum_ Antimony_	2520.00 6.90	ייי טו		P	
	7440-38-2 7440-39-3	Arsenic Barium	0.99 22.10	U;	WN	F I	
- !	7440-41-7 7440-43-9 7440-70-2	Cadmium	1.20	U		P	
	;7440-47-3 ;7440-48-4	Chromium_ Cobalt	3.30 1.20	ָּן ט		P	٠.
	7440-50-8 7439-89-6 7439-92-1	!Iron	2.90 2180.00 13.00	B		P	
· '	7439-95-4 7439-96-5	Magnesium Manganese	348.00 63.50	8		P	
₩	7439-97-6 7440-02-0 7440-09-7	Nickel	4.70	0		CV P	
	7782-49-2 7440-22-4	Selenium_		U		F	
· <i>I</i>	7440-23-5	Thallium_		8		P F	
.	7440-66-6	Vanadium_ Zinc Cyanide		В	ε	P P NR	
		1		_i_i		_	
olor Before:	DK.GRAY	Clarity	/ Before:			Texture	: COARSE
wolor After:	COLORLESS	Clarity	After:			Artifac	ts:
/omments:							

FORM I - IN

···80648

U.S. EPA - CLP

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

000304

lab Name: CHESTER LABNET-HOUSTON Contract:

Lab Code: KEYTX Case No.: \$19A SAS No.: \$DG No.:

Matrix (soil/water): SOIL

Lab Sample ID: 940351007

Level (low/med): LOW

Date Received: 03/04/94

Solids:

78.6

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	c	a	M
7429-90-5	Aluminum	3130.00	¦=¦		P
7440-36-0	Antimony_	7.10	!!!	 	¦P
7440-38-2	Arsenic	1.10	:B :	N	¦F
7440-39-3	Barium	22.10	;B;	!	P
7440-41-7			IB!		¦P
7440-43-9			:0;	;	12
7440-70-2	Calcium_		 B		!P
7440-47-3			1 1	! !	¦P
7440-48-4	Cobalt		U		¦P
	Copper		B		!P
7439-89-6	Iron		i į		P
7439-92-1	Lead		1	S	F
	Magnealum		B		P
7439-96-5	Manganese	1	i		!P
7439-97-6	Mercury_		iu	*	CV
	Nickel		U		P
	Potassium		Ŭ		IP
	Selenium_		เบ		F
	Silver		U	•	P
	Sodium		В	_	P
7440-28-0			ίŪ		F
7440-62-2			B	•	P
7440-66-6	Zinc			Ε	P
	Cyanide		•	_	NR

-1	Before:	BI ACK
SIDE	BETOTE:	BLACK

Clarity Before:

Texture: COARSE

₩olor After: COLORLESS Clarity After:

Artifacts:

i	enterte:
_	
1	

U.S. EPA - CLP

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO. 000305

VILAB Name: CHESTER LABNET-HOUSTON Contract:

Lab Code: KEYTX Case No.: 519A SAS No.:

SDG No.:

| | matrix (soil/water): SOIL

Lab Sample ID: 940351008

Level (low/med): LOW

Date Received: 03/04/94

% Solids:

78.9

concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	М
7429-90-5	Aluminum_	5440.00	-		P
7440-36-0			U		¦₽
7440-38-2	Arsenic	1.80	IB!	N	¦F
7440-39-3	Sarium	48.00	18		ŀΡ
7440-41-7	Beryllium	0.36	IB!		¦P
7440-43-9			וטו		¦Ρ
7440-70-2	Calcium_	651.00	IB;		P
7440-47-3			; ;		ŀΡ
7440-48-4	Cobalt	7.00	181		¦₽
7440-50-8	Copper		B		12
7439-89-6	!Iron		1 1		IP
7439-92-1		18.50	1 1	!	ļF
7439-95-4	Magnesium	795.00	¦B;		¦P
7439-96-5	Manganese	168.00			ŀΡ
7439-97-6			U	*	;cv
7440-02-0	Nickel	4.80	¦U¦	 	;P
7440-09-7	'Potassium	284.00	U		P
7782-49-2	Selenium_	0.25	וטן	 	¦۶
7440-22-4			U	 	P
7440-23-5	Sodium	1050.00	B	E	P
7440-28-0	Thallium_	0.76	เบ	 	¦F
7440-62-2	Vanadium_	16.10	1 1		¦P
7440-66-6	Zino	14.70	1	Ε	P
	_Cyanide	l }	1	!	INR

	plor	Before:	DK.GRAY	Clerity	Before:	Texture:	COARSE
•	olor	After:	COLORLESS	Clarity	After:	Artifacts:	
į	ខ្មារមេខា	ne:					
				·			

Summary of Amalytical Results

John 1894-(13.56	
Oustoner: Mag, INC.	
Date received: 749R-1994	

		Semples						
Chester lightet. ID Empling Politi Date Empled Customer. ID		Se-con Or CC Christsy Live Rank Re	56-002 X 4-441-1994 S194000401 He	56-03 Of C Gen-1996 E19400901 UE	56-004 OR OT FEATH-1590 BISHCOOLOI MS	56-005 4-461-1994 S194000412 III	56-006 X 4-48R-1994 S19400403 RR	
Farmeters	Unite		ļ					
notel Copenio Belogens (Solid) Amiyet: Eli. Date/Time: (3/08/94 10:00 Pilotion: 1.0	p3/gm	60.0	0.89	63 :0	* 011	C24.0	G.0	
Total Pet. Hydrocadors (Solid) Aralyst: Eil/JB Dete/Time: (3/09/94 14:00 Dilution: 1.0	fy/fm	89	8	8 .0	* 0°08	0.10	57.0	

* - \$ Rocerry IR - Not Regulad IN - Not Applicable

Chester Labbet - HOUSTON

Reported on : 11-MAR-1994

Client Hame: FRENCH LIMITED Work Order: H94-03.56
Sample ID: CAP0307-066 Date Collected: 04-MAR-1994

Sample Name: H94-03.56-002 Matrix : SOIL

Project No.: 519A Date Received: 07-MAR-1994
Percent Moisture: 15 % Date Extracted: 08-MAR-1994

Client ID : 819A0004 01 Checked by : MJM

Organic Analysis Data Sheet Compounds Analysis by SW846 Wethod 8080

Date Analyzed: 9-MAR-1994 16:26 Dilution Factor: 1.000

		Detection	Detected
Cas #	Compound	Limits	Conc. ug/kg
309-00-2	ALDRIN	1.6	1.6 U
319-84-6	ALPHA-BHC	0.39	0.39 U
319-85-7	BETA-BHC	1.2	1.2 U
319-86-8	Delta-BHC	1.2	1.2 U
58-89-9	GAMMA-BHC/LINDANE	1.2	1.2 U
57-74-9	CHLORDANE	5.5	5.5 U
72-54-8	4,4'-DDD	2.0	2.0 U
72-55-9	4,4'-DDE	1.2	1.2 U
50-29-3	4,4'-DDT	4.7	4.7 U
60-57-1	DIELDRIN	0.78	0.78 U
959-98-8	ENDOSULFAN I	7.8	7.8 ប
33213-65-9	endosulpan II	7.8	7.8 U
1031-07-8	ENDOSULFAN SULFATE	3.9	3.9 U
72-20-8	ENDRIM	2.4	2.4 U
7421-93-4	ENDRIM ALDEHYDE	3.9	3.9 U
76-44-8	HEPTACHLOR	1.2	1.2 U
1024-57-8	HEPTACHLOR EPOXIDE	2.0	2.0 U
72-43-5	Methoxychlor	20	20 U
8001-35-2	TOXADHENE	94	94 Ü
12674-11-2	AROCLOR-1016	20	20 U
11104-28-2	AROCLOR-1221	20	20 T
11141-16-5	Aroclor-1232	20	20 U
53469-21-9	Aroclor-1242	20	20 U
12672-29-6	AROCLOR-1248	20	20 U
11097-69-1	AROCLOR-1254	20	20 U
11096-82-5	AROCLOR-1260	20	20 U

U = Undetected at the Listed Detection Limit .

J = Compound is present, but below the Detection Limit.

B = Compound is also found in Blank.

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Chester LabNet - HOUSTON

Reported on : 11-MAR-1994

Client Name : FRENCH LIMITED Work Order : H94-03.56 Sample ID : CAP0307-065 Sample Name : H94-03.56-005 Date Collected : 04-MAR 1994 Matrix : SOIL Date Received : 07-MAR-1994 Project No. : S19A Date Extracted : 08-MAR-1994

· MIM

Project No. : S19A
Percent Hoisture : 20 %
Client ID : S19A0004 02 Checked by

Organic Analysis Data Sheet Compounds Analysis by SW846 Hethod 8080

Date Analyzed: 9-MAR-1994 15:40 Dilution Factor: 1.000

		Detection	Detecte	a .
Cas #	Compound	Limits	Conc. u	g/kg
309-00-2	ALDRIN	1.7	1.7	U
319-84-6	ALPHA-BEC	0.42	0.42	U
319-85-7	BETA-BHC	1.3	1.3	U
319-86-8	DELTA-BEC	1.3	1.3	U
58-89-9	Gamma-BHC/Lindane	1.3	1.3	U
57-7 4- 9	CHLORDANE	5 .9	5.9	U
72-54-8	4,4'-DDD	2.1	2.1	U
72 - 55-9	4,4'-DDE	1.3	1.3	U
50-29-3	4,4'-DDT	5.0	5.0	ט
60-57-1	Dieldrin	0.84	0.84	ប
959 -9 8 -8	endosulfan i	8.4	8.4	t
3 3213- 65-9	endosulfan II	8.4	8.4	u
1031-07-8	ENDOSULPAN SULFATE	4.2	4.2	u
72-20-8	ENDRIN	2.5	2.5	U
7421-93-4	ENDRIN ALDEHYDE	4.2	4.2	U
76-44-8	HEPTACHLOR	1.3	1.3	U
1024-57-3	HEPTACHLOR EPOXIDE	2.1	2.1	U
72-43-5	Hethoxychlor	21	21	U
8001-35-2	Toxaphene	100	100	u
12674-11-2	AROCLOR-1016	21	21	u
11104-28-2	Aroclor-1221	21	21	U
11141-16-5	Aroclor-1232	21	21	u
53469-21-9	AROCTOR-1242	21	21	U
12672-29-6	AROCLOR-1248	21	21	ช
11097-69-1	Aroclor-1254	21	21	ช
11096-82-5	AROCLOR-1260	21	21	u

U = Undetected at the Listed Detection Limit .

J = Compound is prosent, but below the Detection Limit.

B = Compound is also found in Blank.

₩ INST ID: 4020

MAR 11'94 15:13 No.007 P.06

·· 80653

CHESTER DC # ---- 8

BAMPLE NUMBER: 819A005401

DROANICS ANALYSIS DATA SHEET

SAN JACINTO

NORTH AREA

SOILS

LABORATORY NAME: CHESTER LABNET

LAB SAMPLE ID NO. : 940308602A

JBAMPLE MATRIX: SDIL

DATA RELEASE AUTHORIZED BY:..... DATE SAMPLE RECEIVED: 03/07/94

VOLATILES

CONCENTRATION: LOW

DATE ANALYZED: 03/11/94

DATAFILE: RUD3054V02A

		COMPOUND CHLOROMETHANE BROMOMETHANE BROMOMETHANE VINYL CHLORIDE CHLOROETHANE METHYLENE CHLORIDE ACETONE CARBON DISULFIDE 1.1-DICHLORDETHENE 1.2-DICHLORDETHANE 1.2-DICHLORDETHANE 1.2-DICHLORDETHANE 2-BUTANONE 1.1.1-TRICHLOROETHANE CARBON TETRACHLORIDE VINYL ACETATE BROMODICHLOROMETHANE 1.2-DICHLOROPROPENE TRICHLORDETHANE 1.1.2-TRICHLOROETHANE 1.1.2-TRICHLOROETHANE 2.1.3-DICHLOROPROPENE TRANS-1.3-DICHLOROPROPENE 2-CHLOROETHYLVINYLETHER	DETECTION LIMIT (MICROGRAMS	AMOUNT FOUND / KO)
	C010	CHLORDMETHANE	12 U	
	CO15	BROMOMETHANE	12 U	
	COZO	VINYL CHLORIDE	12 U	
17	C025	CHLORDETHANE .	12 0	
	C030	METHYLENE CHLORIDE	6 U	•
	0035	AULTUNE	12 0	
	COAD	CARBON DIBULFIDE		
1	0042	1.1 PUICHLORUETHENE	6 V	
1	COSO	1.1 TUILIFILUNDE IMANE.	4 U	
	7474 7474	TIETUS (IGINE)	¥ II	
1 1	2000	CHLURUFURH C. OLDÍFIL FIRETUANE	4 11	
1	0000	S-Distanting vinia	19 11	
	6115	1.1.1-TP1/WI ODDETHAND	11 4	
1 :	0120	CARRIN TETRACULORING	บี ฉั	
	C125	UINVI. ACETATE	เอ็น	
-	Č130	PROMODICHLOROMETHANE	นี้ อั	
	C140	1, 2-DICHLORDPROPANE	άŰ	
	C149	CIS-1. 3-DICHLOROPROPENE	ő Ü	
	C150	TRICHLORDETHENE	6 U	
	C155	DIBROMOCHLORDMETHANE	6 U	
1 '	C160	1, 1, 2-TRICHLORDETHANE	6 U	
نيا	C145	Benzene	6 U	
	C172	Trans-1.3-Dichloropropene	6 U	
	C175	2-CHLORDETHYLVINYLETHER	12 V	
	CIRD	BROMOFORM	6 U	
	C205 -	4-METKYL-2-PENTANDNE	12 U	
	CS10	E-HEXANDNE	12 U	
10	C550	TETRACHLORDETHENE	6 U	
	C225	1.1.2-TRICHLORDETHANE BENZENE TRANS-1.3-DICHLORDPROPENE 2-CHLORDETHYLVINYLETHER BROMDFORM 4-METKYL-2-PENTANONE 2-HEXANONE TETRACHLORDETHENE 1.1.2.2-TETRACHLORDETHANE TOLUENE CHLORDBENZENE BTYRENE	6 U	
	C230	TUMUENE	6 U	
10	C235 C240	CHLURUSENAENE ETHYLBENITENE	6 V	
	C245	CTVDENE CONTE	A 11	
~	CZSO	XYLENES (TOTAL)	នំ ប័	
	A 45 A 42	**	# =	

U = UNDETECTED AT THE LIGTED DETECTION LIMIT

> J = COMPOUND IS PRESENT, BUT BELOW THE LISTED DETECTION LIMIT

~80654

INST ID: 4020

CHESTER DO # ---- B

BAMPLE NUMBER: 619A000402

DROANICS ANALYSIS DATA BHEET

SAN JACNTO SOUTH AREA

SOILS

LABORATORY NAME: CHEBTER LABNET

LAB SAMPLE ID NO.: 9403086088

SAMPLE MATRIX: BOIL

DATA RELEASE AUTHORIZED BY:..... DATE SAMPLE RECEIVED: 03/07/94

VOLATILES

, CONCENTRATION: LOW

DATE ANALYZED: 03/11/94

DATAFILE: RU03056V05B

	COMPOUND	DETECTION LIMIT (MICROGRAMS	ANDUNT FOUND / KQ)
CO1	CHLOROMETHANE BROMOMETHANE VINYL CHLORIDE CHLOROETHANE METHYLENE CHLORIDE ACETONE CARBON DIBULFIDE 1.1-DICHLORDETHENE 1.2-DICHLORDETHENE 1.2-DICHLORDETHANE CARBON TETRACHLORIDE VINYL ACETATE DROMODIOHLOROMETHANE 1.2-DICHLOROFROFANE CIS-1.3-DICHLOROPROPENE TRICHLOROETHENE DIBROMOCHLOROMETHANE 1.1.2-TRICHLOROETHANE 1.1.2-TRICHLOROETHANE CIS-1.3-DICHLOROPROPENE TRICHLOROETHENE DIBROMOCHLOROMETHANE 1.1.2-TRICHLOROETHANE ENZENE TRANS-1.3-DICHLOROPROPENE CHLOROETHYLVINYLETHER BROMOFORM 4-METHYL-R-PENTANONE 2-HEXANONE TETRACHLOROETHENE 1.1.2.2-TETRACHLOROETHANE CHLOROBENZENE C	12 U	
C015	BROMOMETHANE	12 U	
COZC	VINYL CHLORIDE	វេទ ក	
C028	CHLORDETHANE	12 U	
C030	METHYLENE CHLORIDE	6 U	
C035	ACETONE	12 U	
C040	CARBON DIBULFIDE	6 U	
CO4	1,1-DICHLORDETHENE	6 U	
COSC	1.1-DICHLORDETHANE	6 U	
COS	1.2-DICHLORDETHENE (TOTAL)	4 U	
C060	CHLORDFORM	ė V	
C045	1.2-DICHLORDETHANE	6 U	
C110	2-BUTANONE	12 U	
C118	1.1.1-TRICHLOROETHANE	6 U	
C120	CARBON TETRACHLORIDE	6 U	
CIR	VINYL ACETATE	12 V	
0150	DROMODICHLOROMETHANE	6 U	
C140	1.2-Dichloroprofane	6 U	
C143	CIS-1.3-DICHLOROPROPENE	6 U	
C150	TRICHLORDETHENE	6 U	
GtB	DIBROMOCHLONOMETHANE	6 U	
C160	1,1,2-TRICHLORDETHANE	6 U	
CIA	BENZENE	6 V	
C178	TRANS-1.3-DICHLOROPROPENE	6 U	
C178	2-CHLORGETHYLVINYLETHER	12 U	
C180	PROMOFORM	6 U	
C20	4-METHYL-R-PENTANONE	12 U	
G216	2-HEXANDNE	12 U	
CZZ) TETRACKLORDETHENE	6 U	
C22	1, 1, 2, 2-TETRACHLOROETHANE	ሪ ሆ	
CZ3) TOLUENE	6 U	
C23	CHLOROBENZENE	6 U	
C241) ETHYLBENZENE	6 U	
C24	STYRENE	ሬ ሀ	
C25) XYLENEB (TOTAL)	Ĝυ	

U = UNDETECTED AT THE LISTED DETECTION LIMIT

J = COMPOUND 18 PRESENT, BUT BELOW THE LISYED DETECTION LIMIT

MAR 11'94 15:14 No.CO7 P.08 FRENCH LIMITED ID:7133286496

··80655

INST ID: 4020

CHEBTER DC # ---- C

BAMPLE NUMBER: 819A000403

ORGANICS ANALYSIS DATA SHEET

SAN JACINTO PEGGY LAKE SOILS

LABORATORY NAME: CHEBTER LABNET | LAB BAMPLE ID NO. : 940305606

L SAMPLE MATRIX: BOIL

DATA RELEASE AUTHORIZED BY:..... DATE SAMPLE RECEIVED: 03/07/94

VOLATILES

CONCENTRATION: LOW

DATE ANALYZED: 03/10/94

DATAFILE: RUD3056V06

Ľ	COMPOUND	DETECTION AMOUNT LIMIT FOUND (MICROGRAMS / KG) 14 U 16 U 16 U 16 U 17 U 18
	CO10 CHLOROMETHANE	14 U
Ų	COID BROMOMETHANE	16 U
	CO20 VINYL CHLORIDE	16 U
1	CORD CHLOROETHANE	. 16 V
	CO30 METHYLENE CHLORIDE	8 U
	GOSD ACETURE	16 U
	CO4D CARRIN DIBULFIDE	# U
	COAD 1:1-DICHLURUEINENE	5 U
!	CACO 1.0_STALE BORTHURS / TATAL /	0 11
	CATO OF THE DESCRIPTION OF THE PROPERTY OF THE	0 4
1:	CALS (. OLNTALE MERETUANE	0 11
		4. U
	C115 1.1.(atotou) nomeruane	D (1
1.	CIPO CARRON TETRACHIORINE	8 0
	CIDS VINVI ACETATE	14 0
-	C120 BROMODICHLORDMETHANE	B U
	C140 1.2-DICHLOROPROPANE	ធិ បី
1 '	C140 CIB-1. S-DICHLOROPROPENE	ទ ប
U	C150 TRICHLORDETHENE	вÜ
	C185 DIBROMOCHLOROMETHANE	äÜ
1 /	C160 1.1.2-TRICHLORDETHANE	B U
L	C160 BENZENE	& U
-	C172 TRANS-1.3-DICHLOROPROPENE	B U
	C175 2-CHLORDETHYLVINYLETHER	16 U
•	C180 Bramdform	e u
	C200 4-METHYL-2-PENTANUNE	16 U
•	C210 R-HEXANDNE	16 U
į .	CREO TETRACHLORDETHENE	B U
	CR25 1, 1, R, 2-TETRACHLOROETHANE	8 0
_	C230 TOLVENE	D U
	CRUP CHLORDBENZENE	B U
	CR40 ETHYLBENZENE	8 U
-	CRAD STYRENE	8 V
	CESO XALKUER (LOLUT)	e v

V = UNDETECTED AT THE LIBTED DETECTION LIMIT

⁻ J = COMPOUND IS PRESENT, BUT BELOW THE LISTED DETECTION LIMIT

FRENCH LIMITED ID:7133286496 680659

INST ID: 4020

CHESTER DC # ---- 8

SAMPLE NUMBER: 819A000501

ORGANICS ANALYSIS DATA SHEET

SAN JACINTO MAIN POND

LABORATORY NAME: CHEETER LABNET

LAB BAMPLE ID NO. : 940306002

SEDIMENTS

BAMPLE MATRIX: BOIL

DATA RELEASE AUTHORIZED BY:..... DATE SAMPLE RECEIVED: 03/07/94

VOLATILES

CONCENTRATION: LOW

DATAFILE: RU03060V02

DATE ANALYZED: 03/10/94

	in Si Si in he an	COMPOUND	DETECTION LIMIT (MICROGRAMS /	AMBUNT FOUND KO)
i	C010	CHLOROMETHANE BROMOMETHANE VINYL CHLORIDE CHLOROETHANE METHYLENE CHLORIDE ACETONE CARBON DISULFIDE 1.1-DICHLORDETHENE 1.1-DICHLORDETHENE 1.2-DICHLORDETHENE CHLOROFORM 1.2-DICHLORDETHANE	16 U	
4	C012	BROMOMETHANE	16 0	
	0030	VINYL CHLORIDE	16 U	•
	C055	UNLURUETHANE .	10 U	
_	じしはひ たわかま	METHYLENE CHLURIDS	80	40
	0000	NOBINE NAME WAVE	40 6 ()	, 10
. :	7400 7400		6 H	
	CORG	f. (-Dich Doutturk	D 14	
	COSS	1. Deniculation (Total)	i a	
	0400	CHLORDFORM		
'	COAB	1. 2-DICHLORGETHANE	តិ <u>ប</u> ិ	
~	C110	2-BUTANONE	16 Ü	
	C115	1, 1, 1-TRICHLORDETHANE	ĒŪ	
1	C120	CARBON TETRACHLORIDE	āÜ	
	C125	VINYL AGETATE	16 U	
	C180	BROMODIGHLOROMETHANE	8 U	
i i	C140	1, R-DICHLOROPROPANE	8 ប	
	0142	CIG-1. Q-DICHLOROPROPENE	BV	
	C150	TRICHLORDETHENE	8 V	
	C185	DIBROMOCHLOROMETHANE	8 0	
1	C160	1. 1. 2-TRICHLORDETHANE	8 Ú	
	0100	BENZENE .	6 U	
	C148		8 0	
i ;	6110	BOUNDERS INTERINER	16 0	
Ľ	0100	ORUMUTUKA A-METUVI O-MENTANANE	* U	
—	C210	A-DELAYIONE	46 0	
1)	C550	TETRACHI GENETHENE	A II	
	C225	1.1.2.2-TETRACHI ORORTHANE	8 0	
L	CEEC	TOLUENE	ត <u>ប</u>	
	C235	1.2-DICHLORDETHANE 1.2-DICHLORDETHANE 1.2-DICHLORDETHANE 2-BUTANONE 1.1.1-TRICHLORDETHANE CARBON TETRACHLORIDE VINYL AGETATE BROHODIGHLORDMETHANE 1.2-DICHLORDPROPANE CIB-1.3-DICHLORDPROPENE TRICHLORDETHENE DIBROHOCHLORDMETHANE 1.1.2-TRICHLORDETHANE BENZENE TRANS-1.3-DICHLOROPROPENE 2-CHLORDETHYLVINYLETHER BROHOFORM 4-METHYL-2-PENTANONE TETRACHLORDETHENE 1.1.2.2-TETRACHLOROETHANE TOLUENE CHLORDBENZENE ETHYLBENZENE BTYRENE	ទី ប៉	
()	C240	ETHYLBENZENE	ន៍ប៊	
	C245	BTYRENE	έV	
	C250	XYLENES (TOTAL)	ឧប	

U - UNDETECTED AT THE LISTED DETECTION LIMIT

[&]quot; J = COMPOUND IS PRESENT, BUT BELOW THE LISTED DETECTION LIMIT

··80657

- INST ID: 4020

CHESTER DC # ---- &

CHESTER DC # ----BAMPLE NUMBER: 819A000502

GROANICE ANALYSIS DATA SHEET

SAN JACNTO OFFSHORE SEDMENTS

LABORATORY NAME: CHESTER LASNET LAB SAMPLE ID NO.: 940306005

GAMPLE MATRIX: BOIL

DATA RELEASE AUTHORIZED BY:..... DATE BAMPLE RECEIVED: 03/07/94

VOLATILES

CONCENTRATION: LOW DATAFILE: RU03060V05 DATE ANALYZED: 03/10/94 DILUTION FACTOR: 1.20 DETECTION AMOUNT LIMIT FOUND (MICROGRAMS / KG) COMPOUND CO10 CHLOROMETHANE 12 U
CO15 BROMDMETHANE 12 U
CO20 VINYL CHLORIDE 12 U
CO25 CHLOROETHANE 12 U
CO35 ACETONE 12 U
CO35 ACETONE 12 U
CO35 ACETONE 12 U
CO40 CARBON DIBULFIDE 6 U
CO45 1.1-DICHLOROETHANE 6 U
CO52 1.2-DICHLOROETHANE 6 U
CO53 1.2-DICHLOROETHANE 6 U
CO53 1.2-DICHLOROETHANE 6 U
CO54 1.2-DICHLOROETHANE 6 U
CO55 1.2-DICHLOROETHANE 6 U
CO55 1.1-TRICHLOROETHANE 6 U
CO55 1.2-DICHLOROETHANE 6 U
CO55 1.1-TRICHLOROETHANE 6 U
CO55 1.1-TRICHLOROETHANE 6 U
CO55 1.1-TRICHLOROETHANE 6 U
CO55 VINYL ACETATE 12 U
CO55 VINYL ACETATE 12 U
CO55 UROMODICHLOROMETHANE 6 U
CO55 TRICHLOROETHANE 6 U 12 U 12 U 6 U C210 2-HEXANDNE
C210 2-HEXANDNE
C220 TETRACHLOROETHENE
C220 TOLUENE
C230 CHLOROBENZENE
C240 ETHYLBENZENE
C245 BTYRENE 6 U

U = UNDETECTED AT THE LISTED DETECTION LIMIT

C250 XYLENES (TOTAL)

CR45 STYRENE

J = COMPOUND IS PRESENT, BUT BELOW THE LISTED DETECTION LIMIT

AT 11/17/2 10.00

Chester LabNet - HOUSTON

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Reported on : 11-MAR-1994

Client Name: FRENCH LIMITED Work Order: H94-03.56
Sample ID: CAP0307-070 Date Collected: 04-MAR-1994
Sample Name: H94-03.56-006 Matrix: SOIL

Project No.: 819A Date Received: 07-MAR-1994
Percent Moisture: 39 % Date Extracted: 08-MAR-1994

Client ID : 819A0004 05 Checked by : MJM

Organic Analysis Data Sheet Compounds Analysis by SW846 Method 8080

Date Analysed: 9-MAR-1994 19:32 Dilution Factor: 1.000

Cas #	Compound	Detection Limits	Detected Conc. ug/kg
309-00-2	ALDRIN	2.2	2.2 U
319-84-6	ALPHA-BHC	0.55	0.55 U
319-85 - 7	BETA-BHC	1.6	1.6 U
319-86-8	Delta-Bhc	1.6	1.6 U
58-89-9	gamma-bhc/lindane	1.6	1.6 V
57-74- 9	CHLORDANE	7.7	7.7 U
72-5 4- 8	4,4'-DDD	2.7	2.7 U
72-55-9	4,4'-DDE	1.6	1.6 U
50-29-3	4,4'-DDT	6.6	6.6 U
60-57-1	DIELDRIN	1.1	1.1 U
959-98-8	endosulfan I	11	11 U
33213-65-9	endosulfan II	11	11 U
1031-07-8	ENDOSULFAN SULFATE	5.5	5.5 U
72-20 - 8	ENDRIN	3.3	3.3 U
7421-93-4	ENDRIN ALDRHYDR	5.5	5.5 U
76-44-8	HEPTACHLOR	1.6	1.6 U
1024-57-3	HEPTACHLOR EPOXIDE	2.7	2.7 U
72-43-5	NETHOXYCHLOR	27	27 U
8001-35-2	TOXAPHENE	130	130 U
12674-11-2	AROCLOR-1016	27	27 U
11104-28-2	AROCLOR-1221	27	27 U
11141-16-5	Aroclor-1232	27	27 U
63469-21-9	Aroclor-1242	27	27 U
12672-29-6	AROCLOR-1248	27	27 บ
11097-69-1	AROCLOR 1254	27	27 U
11096-82-5	AROCLOR-1260	27	27 U

U = Undetected at the Listed Detection Limit .

J = Compound is present, but below the Detection Limit.

B = Compound is also found in Blank.

30659

U.S. EPA - CLP

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO. 000403

-.ab Name: CHESTER LABNET-HOUSTON Contract:

1 % ab Code: KEYTX Case No.: \$19A SAS No.: SDG No.1

matrix (soil/water): SOIL

Lab Sample ID: 940356006

evel (low/med): LOW

Date Received: 03/07/94

: Solids:

60.5

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	М
7429-90-5	Aluminum_	13000.00			P
7440-36-0	Antimony_	9.30	101		Į P
7440-38-2	Arsenic		Ì	+	F
7440~39-3					P
7440-41-7	Beryllium		B		¦P
7440-43-9			เบ		ĮΡ
7440-70-2				E	P
7440-47-3			į		ļΡ
7440-48-4	Cobalt		18		P
7440-50-8	Copper		Ì		P
7439-89-6	Iron	16800.00			IP
7439-92-1		45.60	1	N	F
7439-95-4	Magnesium	5520.00	İ	Ε	ļΡ
7439-96-5			1		ÌΡ
7439-97~6					cv
7440-02-0				 	, 6
	Potassium		1		l P
7782-49-2	Selenium_	0.33	U		¦F
7440-22-4			U		ĮP
7440-23-5	Sodium				}P
	Thallium_		U		İF
7440-62-2			į		P
7440-66-6	Zinc	87.80	1		P
	Cyanide		į		NR

or Before: GRAY Clarity Before:

Texture: COARSE

or After:

COLORLESS Clarity After:

Artifacts:

omments:

FORM I - IN

11-MA-1994

Page 1

Surmary of Analytical Results

Date received: 8-MAR-1994

Oustoner: FIEG, INC.

Job name: H94-03.60

		emples				
Chaster Lablet ID Sampling Point Date Sampled Customer ID		00-001 IA OC 7-1-12-19-1 IAB ELAYK IA	60-002 X 7-1-447-1994 S194000501	60-003 OA OC "HAR-1994 519-000501 DOP	60-004 OA OC 71-55-1594 51-9400501 HE	60-005 X 7-1-88-1994 S194000502 NA
Parameters	Unite					
Total Cognic Relogens (Solid) Analyst: RNS Date/Time: 03/08/94 14:00 Dilution: 1.0	ਸ਼ ਹ੍ਰ∕ €ਹੁ	420.0	432.0	≪2.0	103 *	<24.0
Total Pet. Reducertons (Solid) Analyst: EII/JUB Date/Time: 03/09/94 15:30	ng/Kg	< 5.0	40.0	⊲9.0	103 *	≪31.0

Dilution: 1.0

* - % Recovery NR - Not Required NA - Not Applicable

1180661

Chester LabNet - HOUSTON

Reported on : 11-MAR-1994

Client Name: FRENCH LIMITED Work Order: H94-03.60
Sample ID: CAP0307-077 Date Collected: 07-MAR-1994
Sample Name: H94-03.60-002 Hatrix: SOIL
Project No.: S19A Date Received: 07-MAR-1994
Percent Moisture: 39 % Date Extracted: 08-MAR-1994

Percent Moisture: 39 % Date Extracted: 08-N Client ID: 519A0005 01 Checked by : MJM

Organic Analysis Data Sheet Compounds Analysis by SW846 Method 8080

Date Analyzed: 10-MAR-1994 00:58 Dilution Factor: 1.000

Analyzed by : 6388657

			Detected
Cas #	Compound	Limits	Cona. ug/kg
309-00-2	ALDRIH	2.2	2.2 Ü
319-84-6	ALPHA-BHC	0.55	0.55 U
319-85-7	BETA-BHC	1.6	1.6 ប
319-86-8	Delta-Bhc	1.6	1.6 U
58-89-9	Ganna-Bec/Lindane	1.6	1.6 U
57-74-9	CHLORDANE	7.6	7.6 U
72-54-8	4,4'-DDD	2.7	2.7 U
72-55-9	4,4'-DDE	1.6	1.6 U
50-29-3	4,4'-DDT	6.6	6.6 U
60-57-1	DÍELDRIN	1.1	1.1 U
959-98-8	ENDOSULFAN I	11	11 U
33213-65-9	endosulfan II	11	. 11 U
1031-07-8	endosulfan sulfate	5.5	5.5 U
72-20-8	ENDRIN	3.3	3.3 U
7421-93-4	ENDRIN ALDEHYDE	5.5	5.5 U
76-44-8	HEPTACHLOR	1.6	1.6 U
1024-57-3	HEPTACHLOR EPOXIDE	2.7	2.7 t
72-43-5	HETHOXYCHLOR	27	27 ซ
8001-35-2	TOXAPHENE	130	130 U
12674-11-2	AROCLOR-1016	27	27 บ
11104-28-2	AROCLOR-1221	27	27 t
11141-16-5	AROCLOR-1232	27	27 U
53469~21-9	AROCLOR-1242	27	27 t
12672-29-6	AROCLOR-1248	27	27 บ
11097-69-1	AROCLOR-1254	27	27 U
11096-82-5	AROCLOR-1260	27	27 U

U = Undetected at the Listed Detection Limit .

J - Compound is present, but below the Detection Limit.

B = Compound is also found in Blank.

~80662

Chester LabNet - HOUSTON

140 247 2124

Reported on : 11-MAR-1994

Client Name: FRENCH LIMITED Work Order: H94-03.60
Sample ID: CAP0307-076 Date Collected: 07-MAR-1994

Sample Name: H94-03.60-005 Hatrix : SOIL

Project No.: \$19A Date Received: 07-MAR-1994
Percent Moisture: 14 % Date Extracted: 08-MAR-1994

Client ID : S19A0005 02 Checked by : MJM

Organic Analysis Data Sheet Compounds Analysis by SW846 Method 8080

Date Analyzed: 10-MAR-1994 00:11 Dilution Factor: 1.000

Analyzed by : 8386657

Cas #	# Compound		Dsteated Conc. ug/kg		
		Limits			
309-00-2	ALDRIN	1.6	1.6 V		
319-84-6	ALPHA-BHC	0.39	0.39 U		
319-85-7	Beta-BHC	1.2	1.2 U		
319-86-8	Degta-Bhc	1.2	1.2 U		
58-8 9- 9	gamma-bhc/lindahe	1.2	1.2 U		
57-74- 9	CHLORDANE	5.4	5.4 U		
72-54-8	4,4'-DDD	1.9	1.9 U		
72-55-9	4,4'-DDE	1.2	1.2 🛭		
50-29-3	4,4'-DDT	4.7	4.7 U		
60-57-1	DIELDRIN	0.78	0.78 ช		
959-98-8	endosulfan i	7.8	7.8 U		
33213-65-9	endosulfan II	7.8	7.8 U		
1031-07-8	ENDOSULFAN SULFATE	3.9	3.9 U		
72-20-8	ENDRIH	2.3	2.3 U		
7421-93-4	ENDRIN ALDEHYDE	3.9	3.9 U		
76-44-8	HEPTACHLOR	1.2	1.2 U		
1024-57-3	HEPTACHLOR EPOXIDE	1.9	1.9 🖫		
72-43-5	HETHOXYCHLOR	19	19 U		
8001-35-2	TOKAPHENE	93	93 II		
12674-11-2	AROCLOR-1016	19	19 ប		
11104-28-2	AROCLOR-1221	19	1 9 U		
11141-16-5	AROCLOR-1232	19	19 U		
53469-21-9	AROCLOR-1242	19	19 U		
12672-29-6	AROCLOR-1248	19	19 U		
11097-69-1	AROCLOR-1254	19	19 U		
11096-82-5	AROCLOR-1260	19	19 U		

U = Undetected at the Listed Detection Limit .

J = Compound is present, but below the Detection Limit.

B = Compound is also found in Blank.

APR 20'94

13:57 No.003 P.01

EPA SAMPLE NO.

000501

U.S. EPA - CLP

INORGANIC ANALYSIS DATA SHEET

ab Name: CHESTER LABNET-HOUSTON

Contract:

_ab Code: KEYTX Case No.: \$19A SAS No.:

SDG No .:

datrix (soil/water): SOIL

Lab Sample ID: 940360002

Level (low/med):

LOW

Date Received: 03/07/94

. Solids:

64.4

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	М
7429-90-5	Aluminum_	10800.00	-		P
7440-36-0	Antimony_	8.70	IU		¦P
7440-38-2	Arsenic	9.20	1 ;	+N	F
7440-39-3	Barium		1 1		P
	Beryllium!		B		P
7440-43-9	Cadmium	1.60	U		ÌΡ
7440-70-2	Calcium	7530.00	1 1		P
	Chromium_				įΡ
7440-48-4	Cobalt	7.10	181		P
7440-50-8	Copper	10.30	1 1		ļΡ
7439-89-6	Iron	16600.00	1 1		P
7439-92-1		43.50	1 1		F
7439-95-4	Magnesium	3660.00	1 1		P
7439-96-5	Manganese	197.00	1 1		įΡ
7439~97-6			1 1		CV
	Nickel		!B!		įρ
7440-09-7	Potassium	2340.00	1 :		P
7782-49-2	Selenium_	0.43	18;		¦F
7440-22-4	Silver	0.93	U	N	ŀΡ
7440-23-5			1 1		ÌΡ
7440-28-0			U	WN	F
	Vanadium_		1 1		įρ
7440-66-6	Zinc		1 1	E	P
	Cyanide	!	1 1		NR

_ %	5 • 6 • • • •	
olor	Before:	GRAY

Clarity Before:

Texture:

COARSE

olor After: COLORLESS

Clarity After:

Artifacts:

omments:

+80664

U.S. EPA - CLP

1
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO. 000502

- Ab Name: CHESTER LABNET-HOUSTON Contract:

Ab Code: KEYTX Case No.: 619A GAC No.!

SUG NO. I

"atily (sull/weter) | 501L

Lab Sample ID: 940360005

evel (low/med): LOW

Data Received: 03/07/94

Solids:

62.8

concentration Units (ug/L or mg/kg dry weight); Mg/KG

CAS No.	Analyte	 Concentration	C	Q	М
7429-90-5	Aluminum_	347.00	-		P
7440-36-0	Antimony_		!U!		P
	AYeenic	0.97	lui	N	14 1
7440-39-3	Barium		B		P
7440-41-7	Heryllium	0.24	ĺυί		IP [
7440-43-9	Cadmium	1.20	ប្រ		P
7440-70-2	Calolum_		B		P
7440-47-3	Chromium_	0.97	101		P
7440-48-4	Cobalt	1.20	U		P ;
7440-50-0	Copper	1.20	ivi		10 1
7439-89-6	Iron	428.00	1 1		IP !
7427-72-1	Logd	1,20	l i	W	۱۳ :
7439-95-4	Magnesium	132.00	¦B¦		IP
フィネタークムレゼ	Manuanoco	n.00	! !		11- :
7439-97-6	Mercury	0.12	U		cv ;
7440-02-0	Nickel	4.60	lni		IP !
7440-09-7	Potassium	271.00	۱۷¦		P
7782-49-2	Selenjum_	0.24	U		F
7440-22-4	Silver	0.72	U	N	P
7440-23-5	Sodium		! A !		P
	Thalllum_		įυ¦	WN	F
7440-62-2	Vanadium.		ĺυί		P
7440-66-6	Zinc		В	E	P
	Cyanide		į		NR
			1 _ i		li

lor Before: BROWN

Clarity Before:

Texture: COARSE

or After: COLORLESS

Clarity After:

Artifacts:

omments:

FORM I - IN

3/70

000004

op og 94 MED - 14°86

71×3086496 P 00

-87665

11-MR-1994

, Page 1

Amery of Analytical Results

	DECO DECUTABOL PARKETANA	Customer: Fine , IN.	OO ING IOVOS
-			

,		शुक्राकृष्टि		·
Charter 1800st ID Supling Point Data Sampled Customer ID		ES-COL CA CC 4FAN-3934 LAB ELANK NA	55-002 K 4+1717-1991 S19000301 NT BW WATER COMP	55-003 X 5-1527-1994 SI90000302 199 SJ WATER COMP
PRINCIPLE	Units		BM WHAT COM	30 4786 4077
Runnia Mitropen es N Fralyst: SG/ Data/Time: 03/08/94 13:36 Dilution: 1.0	my/L	€0.10	0.11	0.11
Mitrate Analyst: 837 Dato/Dime: 03/10/94 11:00 Dilution: 1.0	រប្ប/៤	⊴0.0 5	40.05	⋖0.05
Octiophospiate Hospiocous Amilyst: JCB Date/Timo: 03/07/94 12:00 Dilution: 1.0	_	40.0 1	Ø.01	Ø.0 <u>1</u>
Total Organic Halogans Analyst: RNS Dute/Dima: 03/09/94 09:00 Dilution: 1.0	mg/L	<0.005	0.20	0.20
Total Pat. Reducembers Analyst: FII/JCB Data/Time: 03/08/94 13:00 Dilution: 1.0	ag/L	<0.50	<0.2 7	◆0.5 2

^{* - *} Recovery NR - Not Required NR - Not Applicable

MAR 11'94 15:11 No.CO7 P.04

KEYBTONE DC # ---- 8

INST ID: DIEF

BAMPLE NUMBER: 619000001

DROANICS ANALYSIS DATA SHEET

BROWNWOOD MIDDLE POND

WATER

LABORATORY NAME: CHESTER LABNET ENV. CASE ND.: --LAB SAMPLE ID NO.: 940305502 GC REPORT ND.:

| BAMPLE MATRIX: WATER

CONTRACT NO.: --

DATA RELEASE AUTHORIZED BY:.... DATE BAMPLE RECEIVED: 03/07/94

VOLATILES

CONCENTRATION: LOW

DATE ANALYZED: 03/09/94

DATAFILE: 5003055V02

DILUTION FACTOR: 1.00

J		COMPOUND CHLOROMETHANE BROMENTHANE VINYL GHLORIDE CHLOROETHANE METHYLENE CHLORIDE ACETONE GARBON DIBULFIDE 1.1-DICHLOROETHANE 1.2-DICHLOROETHANE 1.2-DICHLOROETHANE 2-BUTANONE 1.1.1-TRICHLOROETHANE CARBON TETRACHLORIDE VINYL ACETATE BROMODICHLOROMETHANE 1.2-DICHLOROFROPANE CIB-1.3-DICHLOROFROPENE TRICHLOROETHENE DIBROMOCHLOROMETHANE 1.1.2-TRICHLOROETHANE BENIENE TRANB-1.3-DICHLOROPROPENE TRANB-1.3-DICHLOROPROPENE 2-CHLOROETHYLVINYLETHER BROMOFORM 4-METHYL-2-PENTANONE 2-HEXANONE TETRACHLOROETHENE 1.1.2.2-TETRACHLOROETHANE TOLUENE CHLOROBENZENE ETHYLBENZENE ETHYLBENZENE ETYRENE KYLENES (TOTAL)	DETECTION LIMIT	AMOUNT FOUND
		Anii Aaib	(HICROGRAMS /	LITER)
	0010	CHLOROMETHANE	10 U	
,	CO15	BROMONETHANE	10 U	
, i	0020	VINYL CHLORIDE	10 U	
_	C025	CHLORDETHANE	10 U	-
	0030	HETHYLENE CHLORIDE	5 U	
	COSS	ACETONE	10	6 J
_	C040	GARBON DIBULFIDE	5 U	
	C045	1.1-DICHLORDETHENE	5 U	
	COBO	1.1-DICHLORDETHANE	5 V	
	COBB	1-2, DICHLOROETHENE (TOTAL)	១ ប	
	0060	CHLORDFORM	<u> </u>	
	C072	1.8-DICHLOROETHANE	5 U	
•	CLID	2-BUTANONE	10 U	
_	CIID	1, 1, 1-TRICHLORDETHANE	ŊŲ.	
	C180	CARBON TETRACHLORIDE	5 U	
	CIES	VINYL ACETATE	10 U	
ال	C120	BROMODICHLOROMETHANE	10 U	
	G140	1, 2-DICHLOROFROPANE	δñ	
	C143	CIB-1, 3-DICHLURERROPENE	5 V	
;	6150	NATIONALI CAMPELLAND	3 U	
_	0100	U 1 SETTO LE CONTRACTO	9 U	
	0168	BENJENE TOTOLURUE TOUNE	€ 11	
	C170	TOANOLI, OLDIANI GODOGGOCHE	* II	
! 	0175	STORI UDUELRAI MINA BURRE	10 0	
	6180		* "	
	0205	A-METHYL -D-DENTANDNE	ιŏ ŭ	
ł	C210	D-HEYANDNE	10 0	
_	C220	TETRACHI DROPTUFKE	5 U	
	CPPS	1. 1. 9. 9-TETRACHI DEDETMANE	5 U	
i	C235	TOLUENE	5 U	
ت ت	C235	CHLOROBENZENE	s v	
	C240	ETHYLBENZENE	รี บั	
	C245	STYRENE	БÜ	
. !	C250	KYLENEG (TOTAL)	B U	

U - UNDETECTED AT THE LISTED DETECTION LIMIT

J - COMPOUND IS PRESENT. BUT BELOW THE LISTED DETECTION LIMIT

INST ID: 81EF

ID:7133286496

MAR 11'94 15:12 No.CO7 P.05

KEYSTONE DO # ---- B

SAMPLE NUMBER: \$19000000

ORGANICS ANALYBIS DATA SHEET

SAN JACINTO

MAIN POND

WATER

LABORATORY NAME: CHEBTER LABNET ENV.

LAR BAMPLE ID NO. : 940305503

FI BAMPLE MATRIX: WATER

J DATA RELEASE AUTHORIZED BY:.... DATE SAMPLE RECEIVED: 03/07/94

CASE NO. : ---GC REPORT NO.:

CONTRACT NO.: --

VOLATILES

CONCENTRATION: LOW

DATE ANALYZED: 03/09/94

DATAFILE: SU03055V03Z DILUTION FACTOR: 1.00

	COMPOUND	DETEC LI	OTION MIT (MICROGRAMS /	Amount Found Liter)
9010	CHLOROMETHANE BROMOMETHANE VINYL CHLORIDE CHLOROETHANE METHYLENE CHLORIDE ACETONE CARBON DIBULFIDE 1,1-DICHLOROETHENE 1,1-DICHLOROETHENE 1-2,DICHLOROETHANE 1-2,DICHLOROETHANE 2-BUTANONE 1,1,1-TRICHLOROETHANE CARBON TETRACHLORIDE VINYL ACETATE BROMODICHLOROMETHANE 1,2-DICHLOROPROPANE CIB-1,3-DICHLOROPROPENE TRICHLOROETHENE DIBROMOCHLOROMETHANE 1,1,2-TRICHLOROETHANE 1,1,2-TRICHLOROETHANE BENZENE TRANS-1,3-DICHLOROPROPENE 2-CHLOROETHYLVINYLETHER BROMOFORM 4-METHYL-2-PENTANONE R-MEXANONE TETRACHLOROETHENE 1,1,2,2-TETRACHLOROETHANE TOLUENE CHLOROBENZENE ETHYLBENZENE ETYRENE XYLENEB (TOTAL)	10	U	
C012	BROMOMETHANE	10	U	
COZO	VINYL CHLORIDE	10	U	
CORS	CHLORDETHANG	10	U ·	
0020	METHYLENE CHLORIDE	5	Ų	
C035	ACETONE	10		4 J
C040	CARBON DIBULFIDE	5	U	
C045	1,1-DICHLORDETHENE	5	U	
COPD	1,1-DICHLOROETHANE	5	V	
C053	1-2, DICHLORDETHENE (TOTAL)	5	U	
COPD	CHLOROFORM	5	V	
C042	1.2-DICKLORDETHANE	5	U	
C110	2-BUTANDNE	10	V	
C115	1,1,1-TRICHLORDETHANE	5	U	
C120	CARBON TETRACHLORIDE	5	บ	
C125	VINYL ACETATE	10	U	
C130	BROMODICHLOROMETHANE	10	U	
C140	1,2-DICHLOROPROPANE	5	V	
C143	C18-1.3-D1CHLDROPROPENE	5	U	
C150	TRICHLORDETHENE	5	U	
C155	DIBROMOCHLOROMETHANE	5	U	
C160	1, 1, 2-TRICHLORDETHANE	2	U	
C165	BENZENE	5	U	
C17R	Trans-1.3-Dichloropropene	5	U	
C175	2-CHLOROETHYLVINYLETHER	10	U	
C180	BROMOFORM	5	U	
C205	4-METHYL-2-PENTANONE	10	U	
C210	R-HEXANDNE:	10	U	
C550	TETRACHLOROETHENE	5	V	
C225	1, 1, 2, 2-TETRACHLOROETHANE	5	U	
C530	TOLUENE	5	V	
CRSS	CHLOROBENZENE	5	U	
C240	ETHYLBENZENE	5	U	
C245	STYRENE	5	U	
C250	XYLENEB (TOTAL)	5	U	

U # UNDETECTED AT THE LIBTED DETECTION LIMIT

J = COMPOUND IS PRESENT. BUT BELOW THE LISTED DETECTION LIMIT

Chester Labbet - HOUSTON

.10 217 2724 1 447

Reported on : 9-MAR-1994

Client Name : FRENCH LIMITED Work Order : H94-03,55 Sample to : CBP0307-057 Date Collected : 04-MAR-1994

Sample Name : H94-03.55-002 Matrix : WATER

Project No. : 5190 Date Beceived : 07-MAR-1994 Client ID : S19C0003 01 Date Extracted : 07-NAR-1994

Checked by " MIM

Organic Analysis Data Sheet Compounds Analysis by SW846 Nethod 8080

Date Analyzed: 9-MAR-1994 09:27 Dilution Factor: 1.000

Analyzed by : 6388657

_			Detected
Cas #	Compound	Limits	Conc. ug/l
309-00-2	ALDRIN	0.040	0.040 U
319-84-6	ALPHA-BHC	0.010	0.010 U
319-85-7	Beta-Bhc	0.030	0.030 U
319-86-8	DELTA-BHC	0.030	0.030 U
58-89-9	Ganna-Bhc/Lindane	0.030	0.030 U
57-74-9	CHLORDANE	0.14	0.14 U
72-54-B	4,4'-DDD	0.050	0.050 U
72-55-9	4,4'-DDE	0.030	0.030 U
50-29-3	4,4'-DDT	0.12	0.12 U
60-57-1	DIELDRIN	0.020	0.020 U
959-98-8	ENDOSULFAN I	0.20	0.20 U
33213-65-9	endosulfan II	0.20	0.20 V
1031-07-8	ENDOSULFAN SULFATE	0.10	0.10 U
72-20-8	ENDRIN	0.060	0.060 U
7421-93-4	ENDRIN ALDEHYDE	0.10	0.10 U
76-44-8	Heptachlor	0.030	0.030 U
1024-57-3	HEPTACHLOR EPOXIDE	0.050	0.050 U
72-43-5	METHOXYCHLOR	0.50	0.50 T
8001-35-2	TOXAPHENE	2.4	2.4 U
12674-11-2	AROCLOR-1016	0.50	0.50 U
11104-28-2	AROCLOR-3221	0.50	0.50 U
11141-16-5	AROCLOR-1232	0.50	0.50 U
53469-21-9	AROCLOR-1242	0.50	0.50 U
12672-29-6	AROCLOR-1248	0.50	0.50 U
11097-69-1	Aroclor-1254	0.50	0.50 U
11096-82-5	AROCLOR-1260	0.50	0.50 U

U = Undetected at the Listed Detection Limit .

J = Compound is present, but below the Detection Limit.

E = Compound is also found in Blank.

·· 80669

Chester LabMet - HOUSTON

Reported on: 9-MAR-1994

Client Name: FRENCH LINITED Work Order: H94-03.55
Sample ID: CBP0307-056 Date Collected: 05-MAR-1994

Sample Name: H94-03.55-003 Matrix : WATER

Project No.: \$19C Date Received: 07-MAR-1994
Client ID: 819C0003 02 Date Extracted: 07-MAR-1994

Checked by I MTH

Organic Analysis Data Sheet Compounds Analysis by SW846 Wethod 8080

Date Analyzed: 9-MAR-1994 08:40 Dilution Factor: 1.000

. Analyzed by : 8388657

Cas #	Conpound	Detection Limits	Detected Conc. ug/l		
309-00-2	ALDRIN	0.040	0.040 U		
319-84-6	ALPHA-BHC	0.010	0.010 U		
319-85-7	BETA-BHC	0.030	0.030 U		
319-86-8	DELTA-BHC	0.030	0.030 U		
58-89-9	GAMMA-BHC/LINDAME	0.030	0.030 U		
57-74-9	CHLORDANE	0.14	0.14 U		
72-54-8	4.4'-DDD	0.050	0.050 U		
72-55-9	4.4'-DDE	0.030	0.030 U		
50-29-3	4.4'-DDT	0.12	0.12 U		
60-57-1	DIELDRIN	0.020	0.020 U		
959-98-8	ENDOSULFAN I	0.20	0.20 U		
33213-65-9	ENDOSULFAN II	0.20	0.20 U		
1031-07-8	ENDOSULFAN SULFATE	0.10	0.10 U		
72-20-8	ENDRIK	0.060	0.060 U		
7421-93-4	ENDRIK ALDEHYDE	0.10	0.10 U		
76-44-8	HEPTACHLOR	0.030	· 0.030 U		
1024-57-3	HEPTACHLOR EPOXIDE	0.050	0.050 U		
72-43-5	METHOXYCHLOR	0.50	0.50 U		
8001-35-2	TOXAPRENE	2.4	2.4 U		
12674-11-2	AROCLOR-1016	0.50	0.50 U		
11104-28-2	AROCLOR-1221	0.50	0.50 U		
11141-16-5	AROCLOR-1232	0.50	0.50 U		
53469-21-9	Aroglor 1242	0.50	0.50 U		
12672-29-6 .	AROCLOR-1248	0.50	0.50 U		
11097-69-1	Aroclor-1254	0.50	0.50 U		
11096-82-5	AROCLOR-1260	0.50	0.50 U		

U = Undetected at the Listed Detection Limit .

J = Compound is present, but below the Detection Limit.

B = Compound is also found in Blank.

11-MAR-1994

Page 1

Surmary of Analytical Pecults

Date received: 7-MAR-1994

Outomer: FING , INC.

Job name: H94-03.54

		Samples						
Chester Labilet ID Sampling Point Date Sampled Customer ID		54-001 OR OC 47-528-1994 LAB ELAYK NA	54-002 X 4-147R-1994 5197000101 17A	54-003 OA OC GAR-1994 SISFOOOIOI	54-004 QA QC AF-R-1994 S19F000101 HS	54-005 X 4-157-1994 519-000102 NA	54-006 X 4-1577-1994 819F000103	
Parameters	Units		_					
Ameria Mitrogen as N Aralyst: 837 Dete/Time: 03/09/94 13:36 Dilution: 1.0	mg/L	<0.10	€0.10	4 0.10	99.0 *	<0.10	◆0.1 0	
Mitrate Analyst: SZV Date/Time: 03/10/94 11:00 Dilution: 1.0	mg/L	<0.05	<0.05	<0.05	93.0 *	∢0.05	⊴ 0.05	
Oxthoriceptate Phosphorous Analyst: JCB Date/Time: 03/07/94 12:00 Dilution: 1.0	mg/L	€0.01	⊙.01	40.01	100 *	w.w	4). @	

* - % Recovery NR - Not Required NA - Not Applicable

11-MAR-1994

Page 2

Surrery of Analytical Results

Job name: H94-03.54 Date received: 7-MAR-1994 Oustoner: FING, INC.

		gamples					
Chester Laitlet ID Sampling Point Data Sampled Oustoner ID		54-007 X 4-1:AR-1994 S19-000104 NR	X MAR-1994 5-MAR-1994 E000104 SI9E000105		54-010 X 5-1442-1994 S197000107	54-011 X 5-199-1994 S19000108	
Parameters	Unita						
Ammanda Niturgen as N Amelyst: 83V Date/Time: 03/08/94 13:36 Dilution: 1.0	mg/L	<0.10	€0.10	<0.10	<0.10	0.10	
Mitrate Analyst: 837 Date/Tima: 03/10/94 11:00 Dilution: 1.0	mg/L	€0.05	<0.05	40.0 5	<0.05	40.0 5	
Orthopicephate Phosphorous Analyst: JCB Date/Time: 03/07/94 12:00 Dilution: 1.0	my/L	€0.01	⊕. 0	o.a	<0.01	₽. 0	

^{* - &}amp; Recovery NR - Not Required NA - Not Applicable

FRENCH LIMITED PROJECT

WETLAND HYDROLOGY EVALUATION SAN JACINTO SITE

FINAL REPORT

Prepared for:

FLTG, Incorporated Crosby, Texas

Prepared by:

APPLIED HYDROLOGY ASSOCIATES, INC. Denver, Colorado

April, 1994

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French Ltd. Project

FLTG, Incorporated

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480675

WETLANDS ASSESSMENT Hydrologic Evaluation - San Jacinto Site

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APPENDICES

Appendix A Laboratory Analytical Reports

WETLANDS ASSESSMENT Hydrologic Evaluation - San Jacinto Site

French Ltd. Project FLTG, Incorporated

1.0 INTRODUCTION

Applied Hydrology Associates, Inc. (AHA) developed and implemented a scope of work to obtain water, soil and sediment samples and perform hydrologic evaluations for the following potential wetland development site adjacent to the San Jacinto estuary:

The San Jacinto Site, a former marshy area at the San Jacinto Battlefield Monument Site that is currently flooded due to subsidence below sea level.

Field work for this project was performed by G&F Technical Services, Inc. (G&F), and coordinated and supervised by Jim Thomson and Art O'Hayre of AHA. The project was initiated with a site meeting with Crouch Environmental on February 25, 1994. Field work was conducted between March 2, 1994 and March 9, 1994. Field-generated data and laboratory analytical results were communicated to project members as received, and were complete by March 14, 1994.

The scope of work is described in Section 2.0. Results are presented in Section 3.0. Laboratory analytical reports are included in Appendix A.

WETLANDS ASSESSMENT Hydrologic Evaluation

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2.0 SCOPE OF WORK

The work performed consisted of the following tasks:

- (1) Perform depth sounding profiles of inshore waters
- (2) Sample inshore waters for salinity, dissolved oxygen, nutrients, and pollutants
- (3) Sample inshore sediments for pollutants
- (4) Sample shallow soils for pollutants
- (5) Drill shallow soils to 15 ft, determine the depth of the pre-subsidence ground surface, and assess soil permeabilities
- (6) Perform bathymetric surveying offshore
- (7) Sample offshore sediments for pollutants
- (8) Sample potential fill area (Peggy Lake) for pollutants
- (9) Evaluate channel and cut plans, to determine likely tidal mixing

Results of these tasks are presented in the above sequence in the following sections. Sample locations are presented on aeriel photgraphs provided by Crouch Environmental Services.

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3.0 RESULTS

3.1 Lagoon Water Depths

Five depth sounding profiles were completed in the main pond ("Monument Pond") at the San Jacinto site on March 5, 1994. Echo sounding methods (described in Section 3.6) were used. A depth sounding profile was also completed in the Santa Anna Bayou, southeast of Monument Pond and hydraulically connected with it and the offshore waters. Depth profiles were also performed in the "Lost Pond" (possible fresh water pond) to the east of the main pond. Results are described below.

Five depth profiles were obtained in the Monument Pond, as shown in Figure 3-1. The transects were started at #1 about 10:00 am. and completed with #5 at about noon. Water depths were relatively consistent at about 2 feet, except near the shore. The bottom consisted of a soft sediment floc that did not always provide for good depth sounding. Approximately 6 inches to 1 foot of soft sediment occurs over much of the pond. Sounding logs are presented in Figures 3-2 through 3-4.

The depth profile in the Santa Anna Bayou was started about 9:30 am starting from the turn-around in the Monument Park located furthest south and east as shown on Figure 3-5. The transect was run heading northwest through the channel. Recorded depths ranged from 1 to 2 feet, as shown on Figures 3-6 and 3-7.

Three depth profiles were obtained in the Lost Pond on March 8. Access was very difficult and required cutting a trail through thick vegetation. A sketch of the pond layout showing transect lines is presented in Figure 3-8. Depths ranged from 4.5 feet in the southwest (nearest the main pond) to less than 0.5 ft in the northeast (furthest from the main pond), as shown in Figures 3-9 and 3-10. As for the main pond, the bottom was very soft sediment which did not yield a "hard" echo response.

Water depths at each water sampling location were also recorded as described in Section 3.2.

3.2 Water Samples

3.2.1 Lagoon Water Samples

Nutrient samples, depths, Secchi disc and field parameters (temperature, specific conductance, pH and dissolved oxygen) were taken at three locations within the Monument Site lagoon, shown on Figure 3-11. Results are provided in Table 3-1.

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Table 3-1
Inshore Waters
Depths, Nutrients and Field Parameters

the terminal

3

Sample	Date	Temp.	рΗ	Field	Dissolved	NH4	Nitrate	Phosphate	Water	Secchi	Comments
Number		(deg.		S.C.	Oxygen	Conc.	Conc.	Conc.	Depth	Disc	
		F)		(us/cm)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(ft)	(inches)	
MP-1-S	3/5/94	65.5	8.68	12770	3.2				2.0	8	10:50 am, 0-1 ft
MP-1-D	3/5/94	67.2	8.67	12790	3.8				2.0	8	1- 2 ft
MP-1-C	3/5/94					<0.10	<0.05	<0.01	2.0	8	depth composite
MP-2-S	3/5/94	67.2	8.71	12900	3.8	0.10	<0.05	<0.01	1.5	8	11:10 am; 0-1 ft.
MP-3-S	3/5/94	69.3	8.67	13080	4.0				1.7	8_	11:40 am; 0-1 ft
MP-3-D	3/5/94	69.0	8.62	13,030	4.0				1.7	8	11:43 am, depth .5- 1.5 ft.
MP-3-C	3/5/94					0.11	<0.05	<0.01	1.7	8	11:45 am, depth composite
LP-1A	3/8/94	75.0	8.70	13,500	5.8					8	
LP-1B	3/8/94	75.3	8.67	13,100	5.8					6	
LP-2A	3/8/94	75.2	8.67	12,800	5.9					9	
LP-2B	3/8/94	74.8	8.61	12,900	5.4					9	
LP-2C	3/8/94	75.2	8.58	12,970	5.9					9	
LP-3A	3/8/94	75.9	8.59	13,140	5.9					6	
LP-3B	3/8/94	75.3	8.52	13,050	5.9					6	

Notes:

MP - Monument Pond

LP - Lost Pond

Figure 3-1

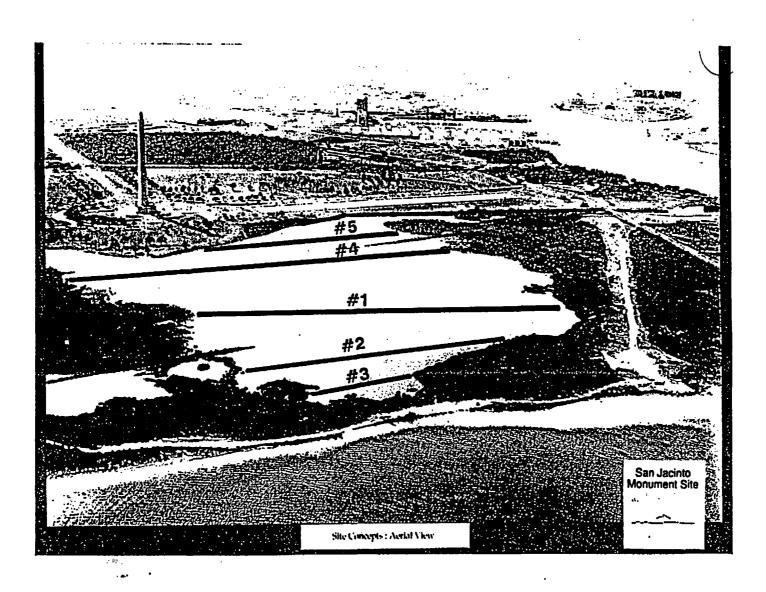
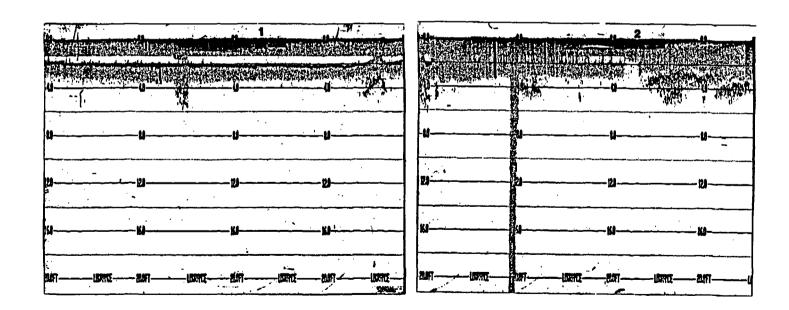


Figure 3-2

San Jacinto Pond Soundings

Profile 1,2
Time
Bearing

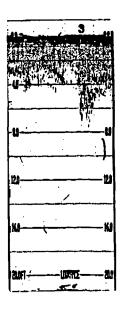


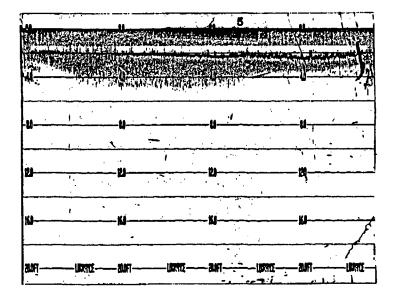
89682

Figure 3-3

San Jacinto Pond Soundings

Profile 3 & 5
Time
Bearing





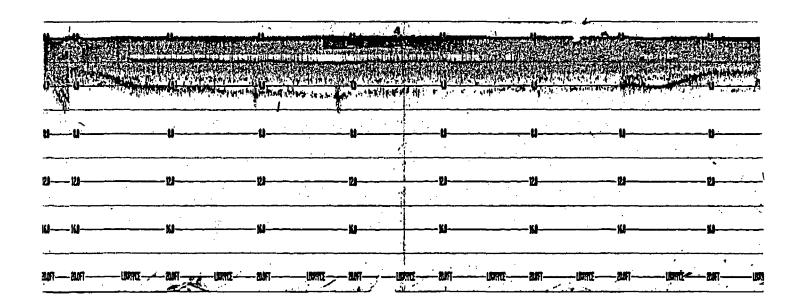
089683

Figure 3-4

TE TO TO TO TO TO TO TO TO

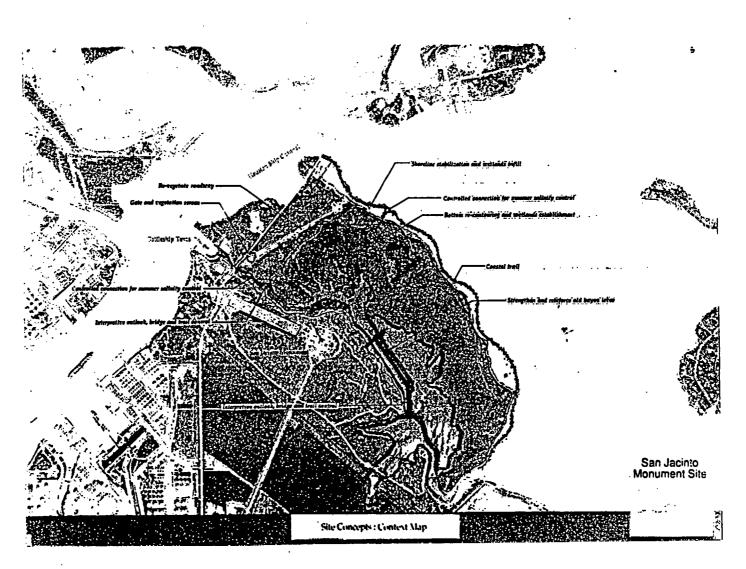
San Jacinto Pond Soundings

Profile 4
Time
Bearing



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Figure 3-5



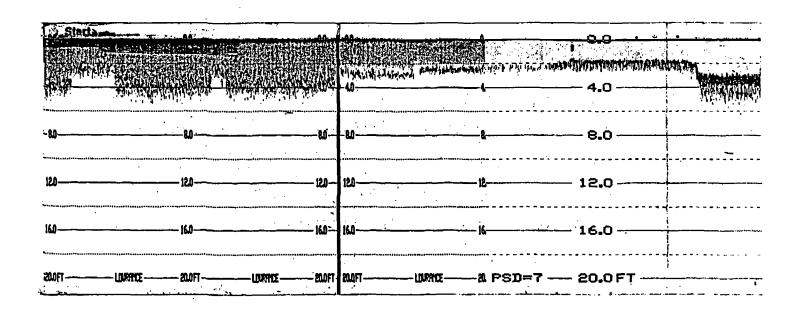
SANTA ANNA BAYOU TRANSECT

80685

Figure 3-6

Santa Anna Bayou Soundings

Profile	Part 1 of 2
Timė	
Bearing	SE to NW

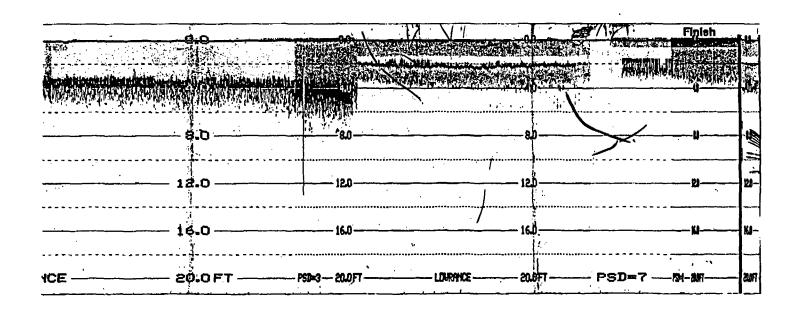


80686

Figure 3-7

Santa Anna Bayou Soundings

Profile	Part 2 of 2
Time	
Bearing	SE to NW

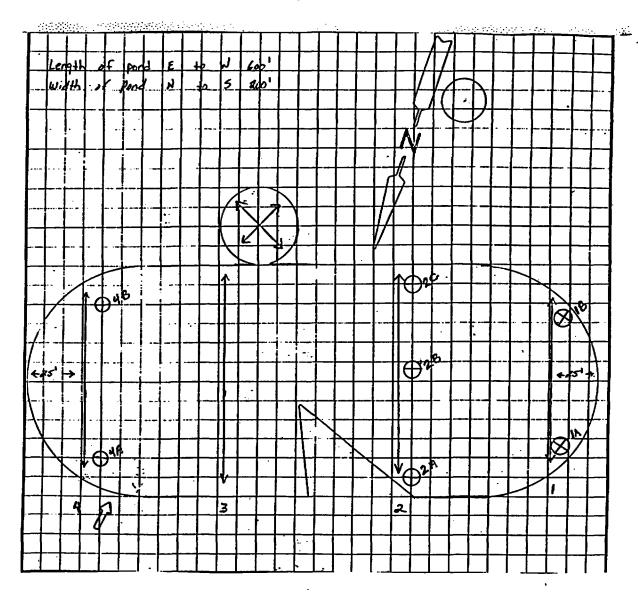


WETLANDS ASSESSMENT Hydrologic Evaluation

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Figure 3-8

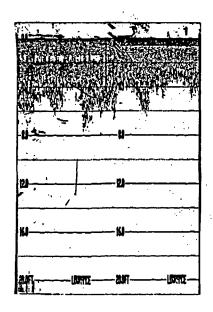


LOST POND TRANSECTS
AND SAMPLE LOCATIONS

Figure 3-9

Lost Pond Soundings

Profile	•	1,2
Time		1320, 1330
Bearing		NW



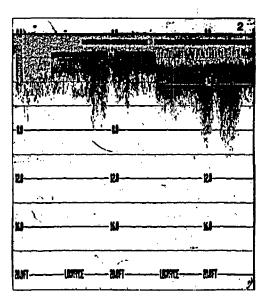
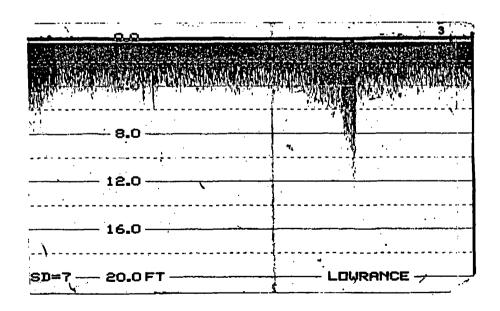


Figure 3-10

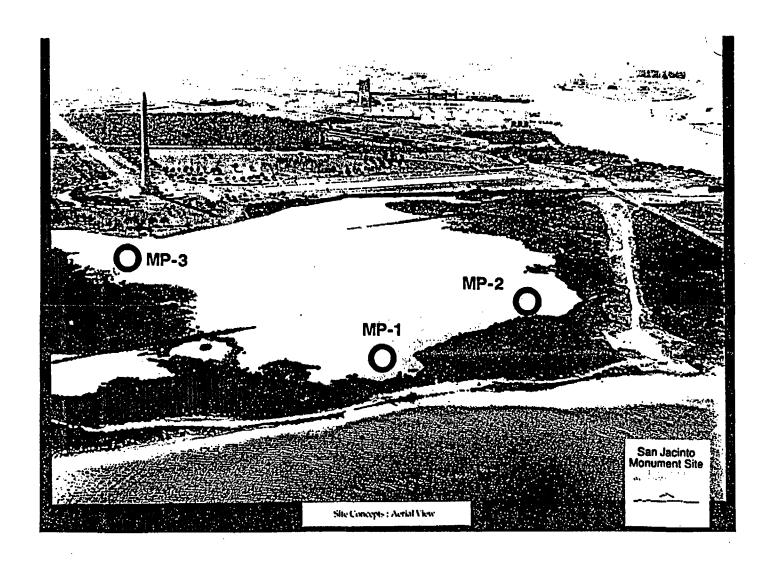
Lost Pond Soundings

Profile .	3
Time :	1340
Bearing	SE



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Figure 3-11



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3.2.2 Fresh Water Pond Samples

Depths, Secchi disc and field parameters (temperature, specific conductance, pH and dissolved oxygen) were measured at seven locations in the Lost Pond, shown on Figure 3-8. These results are provided in Table 3-1. The water had very similar pH and turbidity to the main pond. DO was higher, despite being warmer on the day sampled. EC was very similar at approximately 13,000 µS/cm. This is equivalent to approximately 10,000 mg/L TDS, or about 30% of seawater salinity.

3.3 Lagoon Sediment Samples

Laboratory chemical analyses for metals, volatile organics, pesticides, PCBs, total organic halogen (TOX) and total petroleum hydrocarbon (TPH) were performed for one composite sediment sample taken from three locations within the Monument Site lagoon. The composite comprised sample numbers MPS-1, MPS-2 and MPS-3. Approximate sample locations are shown on Figure 3-12.

Sediment samples were collected with a 1-foot split spoon sampler driven into the sediments at the sample location. Chemical analytical results are presented in Tables 3-2 and 3-3.

3.4 Soil Samples

Laboratory chemical analyses for metals, volatile organics, pesticides, PCBs, total organic halogen and total petroleum hydrocarbon were performed for two composite soil samples from land areas approximately 50 to 250 feet from the shore. The North Area composite comprised sample numbers 1 through 6, from the north area of the site (soil sample locations are shown on Figures 3-13). The South Area composite comprised sample numbers 7 through 11, from the south area of the site.

Soil samples were composite cuttings collected by driving a powered auger into the soils at the sample location to a depth of approximately 5 feet. Chemical analytical results are provided in Tables 3-2 and 3-3. Field logs for these soil samples are provided in Table 3-4.

Table 3-2

Analytical Results - Organic Parameters

MEDIA	Area	Sample ID (S19)	VOCs	тох	TPH	Pesticides PCBs
SOIL	North Area South Area	A401 A402	ND ND	ND ND	ND	ND ND
WATER	Main Pond #3	C302	Acetone 6	ND	ND	ND
SEDIMENTS	Main Pond Peggy Lake Offshore	A501 A403 A502	Acetone 18 ND ND	ND ND ND	ND 57 ND	ND ND ND

Notes

Units: VOCs - ppb; TOX/TPH - ppm

Table 3-3
Analytical Results - Metals

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Media	S	OIL		SEDIMENTS		WATER
Site	North Area	South Area	Main Pond	Peggy Lake	Offshore	Main Pond
Al	5,890	12,000	10,800	1,300	347	0.452
Sb	< 6.5	6.9	8.7	9.3	6.8	
As	2.00	4.60	9.20	9.70	0.97	0.04
Ba	54.9	126.0	101.0	194.0	10.6	0.0797
Be	0.38	0.07	0.85	1.10	0.24	<.001
Cd	<1.2	<1.2	1.6	1.7	1.2	<.005
Ca	15,300	22,800	7,530	8,130	195	76.3
Cr	6.6	12.7	15.2	25.7	1.0	<0.004
Co	4.1	6.9	7.1	9.2	1.2	<.005
Cu	4.3	7.9	10.3	17.6	1.2	<.005
Fe	5,400	11,300	16,600	16,800	428	0.466
Pb	8.8	11.2	43.5	45.6	1.2	0.0024
Mg	1,720	3,820	3,660	5,520	132	135
Mn	115	192	197	1,280	6	0.105
Hg	<0.12	<.12	0.23	0.33	0.12	<.0002
Ni	4.7	12.4	10.7	18.0	4.6	0.019
K	540	2,100	2,340	2,670	271	44.6
Se	<0.23	<.25	0.43	0.33	0.24	<.005
Ag	<0.69	<.74	0.93	0.99	0.72	<.003
Na	295	980	3,420	6,090	254	2,020
Th	< 0.69	<.74	1.6	1.0	0.2	0.0017
Va	9.7	20.1	23.2	25.1	1.0	<.004
Zn	14.1	26.2	41.2	87.8	2.7	0.0135

Units: ppm

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Table 3-4 Soil Sample Logs

Sample	Description
N 1	Tan sand; gray silty sand, tan silty sand and gray sand.
N 2	Red Brown and tan clay 0-3 ft.; Coarse light brown sand 3-5 ft.
N 3	Light tan, medium sand 0-4 ft. gray medium sand 4-5 ft.
N 4	Tan sand 0-1 ft.; Tan to gray silty clay 1-3 ft.; tan/red clay 3-5 ft.
N 5	Tan to gray clay 0-2 ft., gray clay 2-3 ft. Coarse tan sand and gravel 3-
	5 ft.; approximately 400 ft from shore
N 6	Brown sand 0-1 ft.; Brown clay 1-2 ft.; Coarse tan sand 2-3 ft.; gray
	silty clay 3-5 ft.; trashy area of which water debris above beach.
S 7	Red and gray clay 0-5 ft.
S 8	Tan silty clay with gravel mix 0-5 ft.
S 9	Gray silty clay 0-4 ft.; coarse gray sand 4-5 ft.
S 10	Red-brown clay 0-3 ft.; medium brown sandy clay 3-5 ft, cleared area
	adjacent to pipeline corridor.
S 11	Inland area 400-500 ft from beach, upland site on side of mound. Red
	brown clay 0-3 ft. Gray-green clay 3-5 ft.

Figure 3-12

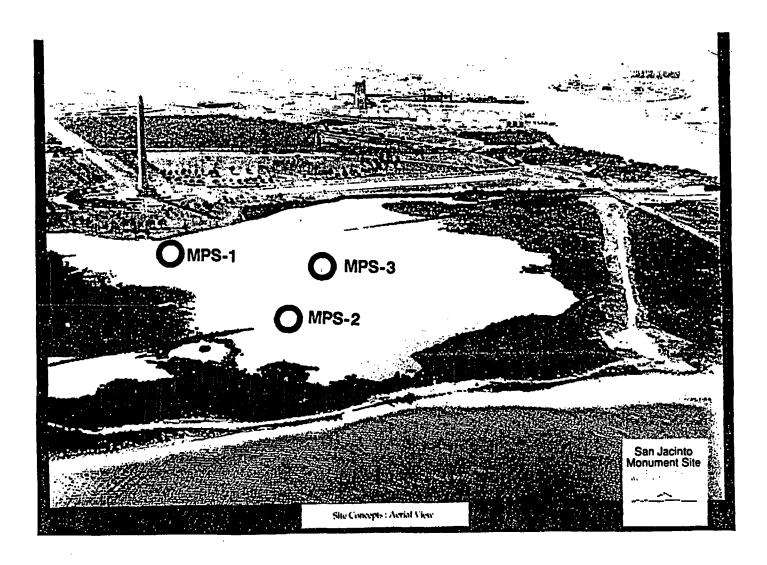
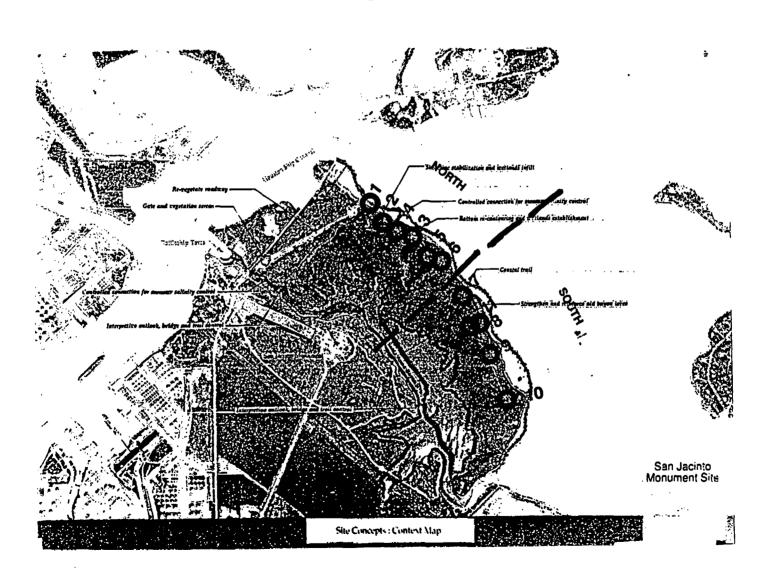


Figure 3-13



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3.5 Drilling & Stratigraphy

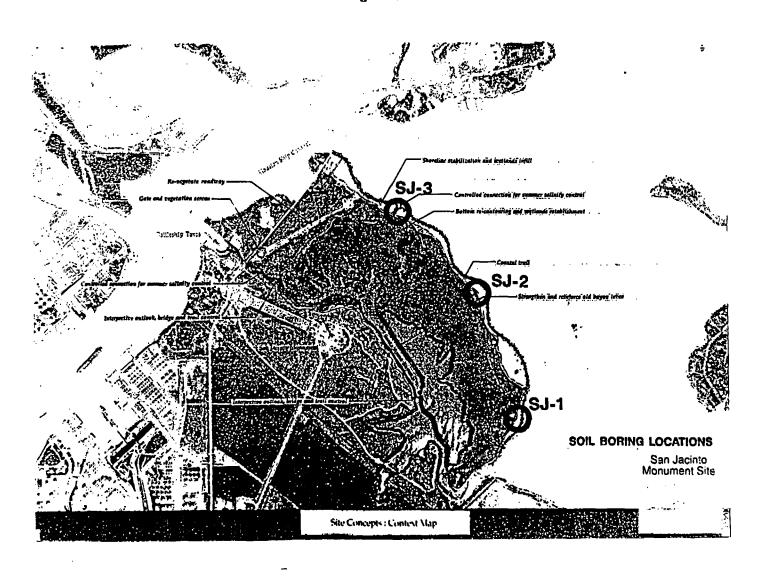
Soil borings were performed by Layne Environmental Services using a buggy-mounted CME 750 hollow-stem auger rig, equipped with 2-inch-diameter split-spoon samplers. Samples were collected from the ground surface to a nominal depth of 15 feet, at two-foot intervals. Samples were logged by Jim Thomson of AHA. Soil boring locations are shown in Figure 3-14. Boring logs are presented in Figures 3-15 through 3-17. Samples were discarded after logging and the hole was backfilled with soil cuttings. Boring locations were pegged for future surveying.

The shallow soil stratigraphy at the San Jacinto site is characterized by a thick sequence of mixed clays and sands in a chaotic assemblage typical of dredge fill. The thickness of fill material varied as follows: 0 feet at SJ-3 in the north; 3 feet at SJ-2 in the center; and 10 feet at SJ-1 in the south. As fill was placed to build up areas of subsidence, this suggests that the amount of subsidence was greater in the southern part of the site. The fill is of estimated low permeability. The fill is underlain by a gray-tan fine to medium grained sand with occasional silty layers, typical of alluvial deposition in this area, and very similar to that found at the Brownwood site. The sand is of estimated moderate permeability. This sand is found at the surface at SJ-3 in the north.

The sand is underlain by a distinctive black plastic clay of probable marine to estuarine origin, with associated black or dark gray or brown silt. The hole terminated in this clay at SJ-1 and SJ-2. At SJ-3, a lower sand, similar to the upper sand, was found underlying the black clay. The clay and sand units appeared to be natural features, with layering and fining upward sequences diagnostic of sedimentary deposition.

Slight petroleum-type odors were noted in all three borings. At SJ-1, odors were noted in the sand beneath the fill, and the upper part of the underlying black clay. At SJ-2, odors were noted in a silty clay within the sand sequence, and in the entire 2.5 feet of the black clay that was sampled. At SJ-3, odors were noted in the sand immediately above the black clay, but not in the lower sand. The most likely explanation for these observations is a release or releases of petroleum hydrocarbons causing an impact to shallow, near-surface soils. The source of the release(s) is uncertain and could be from nearby refineries, or from discharges into the Ship Channel. The age of the release(s) is also uncertain.

Figure 3-14



French Ltd. Project

FLTG, Incorporated

Figure 3-15

Soil Boring: SJ-1 Date Completed: 3/5/94

Geologist: J.A.M.Thomson Drilling Co.: Layne Environmental Services

Geolo	gist:	<u>J.A.M.</u>]	Thomson Drilling Co.: Layne Environmental Service	es
DEPTH	COLUMN	LETHOLOGY	DESCRIPTION	_
-0.0		SOLL	Contains clay.	
F		FILL DREDGED	Mainly gray mottled with yellow/brown silty	
1.0			clay.Contains partings, laminations, and thin beds of	
2.0			clean, medium grained, tan sand.	
، ۳		PILL PRESCEO	Red/broun mottled gray clay.	
3.0		DREDGED	Mixed clay/sand layers, <0.5'.	
4.0				
E I				
5.0				
ایرا			.	
6.0		SAND		
7.0	经经验	FILL	Mixed gray, red, dark brown clay with frequent thin	
: · ·			layers and partings of coarse to medium grained sand.	
8.0		FILL		
		OREDGEO		
9.0			·	
10.0	12.42.42.42	SAND SILTY	Fine grained, gray stained.	
11.0			·]	
11.0				
12.0		SAND SILTY	Fine grained, gray stained.	
		SAND SILTY	Oily odor.	
13.0		CLAY SILTY	Dark gray to black, high plasticity. Slight petroleum	
			odor.	
14.0		CLAY SILTY	Dark broun to dark tan.	
15.0				
16.0		****		
		SAND SILTY	Fine grained, gray/broun sand, broun silt, and	
17.0			occasional plastic clay.	
18.0				
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19.0	1			
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Figure 3-16

Soil Boring: SJ-2 Date Completed: 3/5/94					
Geolo	gist:	J.A.M.1	Thomson Drilling Co.: Layne Environmental Service		
OEPTH	COLUTA	ELTHOLOGY	DESCRIPTION		
0.0 1.0 2.0		FILL DREDGEO	Mainly CLAY, dark brown, gray, red brown, and yellow/brown. Contains some fine to coarse grained gray SAND.		
3.0 4.0 5.0 6.0		SAND SILTY	Fine to medium grained in gray/broun layers. Het Q 6.0'.		
7.0 8.0 9.0		SILT SANDY SAND SILTY	Bark gray with fine grained sand. Fine to medium grained in gray/brown layers.		
10.0 11.0 12.0		SHRE SILTT	Fine to medium grained in gray brown layers.		
13.0		CLAY	Plastic and black with petroleum odor and fiberous plant material. Dark gray and has petroleum odor.		
15.0 16.0		CLAY	Black and has petroleum odor.		
18.0					
19.0 20.0					
21.0					
22.0 23.0		i			
24.0					
- 1	ŀ				

Figure 3-17

		Date Completed: 3/5/94
gist:	J.A.M.	Thomson Drilling Co.: Layne Environmental Services
COLUTY	L(THOLOGY	DESCRIPTION
	· 	·
	ļ	
ļ	 	
	SANO	Fine to medium grained, brown to gray with no odor.
	SAND SILTY	Coarse grained.
	SAND	
		Black with petroleum odor.
	END CLAYEY	Brown, high plasticity with fine sand.
		·
	CLAY SILTY	Black with high plasticity. Contains wood fragments.
		Contains good tragments.
	SAND	Medium to coarse grained, gray/tan, no odor.
	SAND	Fining-up sequence, Base contains up to 1/2 gravel and larger lumps of hard green SILT.
	SAND	

·		
	gist:	SAND SAND SAND SAND SAND SAND SAND SAND SAND SAND SAND

French Ltd. Project

FLTG, Incorporated

3.6 Offshore Bathymetric Survey

Offshore depth profiles were performed as previously described. Profile locations are shown in Figure 3-18. All profiles were run from the Houston Ship Channel towards the shore line. Sounding logs are presented in Figures 3-19 through 3-24. Maximum depths in the Channel ranged from 30 to 40 feet. The side of the Channel rises sharply. Northern profiles (1 through 6) show a broad, fairly level bank adjacent to the Channel, between 4.5 to 6.5 feet deep, sloping gently up toward the shore. Further south (profiles 7 through 12), the bank shows more relief, rising from depths of between 6 and 12 feet deep near the Channel, with a marked upslope toward the shore. The steepest rise was at profile 10. In the southern area (profiles 11 and 12), the sounding showed development of marked ripple structures that may be caused by tidal flows in and out of the inshore ponds and bayous.

3.7 Offshore Sediment Samples

Offshore sediment samples were collected from the upper 1 foot of sediment at the 5-foot depth on offshore sounding lines 1, 6, and 12 (see Figure 3-18). Results of chemical analysis are presented in Tables 3-2 and 3-3.

3.8 Peggy Lake Soil Samples

Laboratory chemical analyses for metals, volatile organics, pesticides, PCBs, total organic halogen and total petroleum hydrocarbon were performed for one composite soil sample taken from five locations within the Peggy Lake dredge disposal site. Sample locations are shown in Figure 3-25. The composite comprised sample numbers PL-1, PL-2, PL-3, PL-4 and PL-5.

Soil samples were taken with a 1-foot split-spoon sampler driven into the dredge spoils at each sample location. Field logs for these soil samples are presented in Table 3-5. Chemical analytical results for the composite sample are presented in Tables 3-2 and 3-3.

WETLANDS ASSESSMENT Hydrologic Evaluation

French Ltd. Project

FLTG, Incorporated

3.9 Tidal Mixing Evaluation

Tidal mixing appears to be restricted by length, depth and meandering of the Santa Anna Bayou; restricted tidal flow is indicated by relatively high salinity within the lagoon. Field observations indicated relatively little water movement in the bayou which connects the lagoon with the San Jacinto Estuary.

WETLANDS ASSESSMENT Hydrologic Evaluation

French Ltd. Project

FLTG, Incorporated

Table 3-5

CLIENT: FRENCH LIMITED

PROJECT: WETLANDS PROJECT (Peggy Lake Core Sampling)

DATE: MARCH 5, 1994

Sample ID: PL-1 Time: 10:10 AM

Depth Description

0' - 2' GRAY SILTY CLAY 2' - 3' BROWN SILTY CLAY

Sample ID: PL-2 Time: 10:30 AM

Depth Description

0' - 1' BROWN SILTY CLAY

1'-2' TAN SILTY CLAY

2' - 3' TAN SILTY CLAY WITH CHUNKS OF BROWN CLAY

Sample ID: PL-3 Time: 11:10 AM

Depth Description

0' - 3' BROWN SILTY CLAY

Sample ID: PL-4 Time: 11:35 AM

Depth Description

0' - 1' GRAYISH BROWN SILTY CLAY

1'-3' BROWN SILTY CLAY

Sample ID: PL-5 Time: 12:00 AM

Depth Description

0' - 3' BROWN SILTY CLAY

Figure 3-18

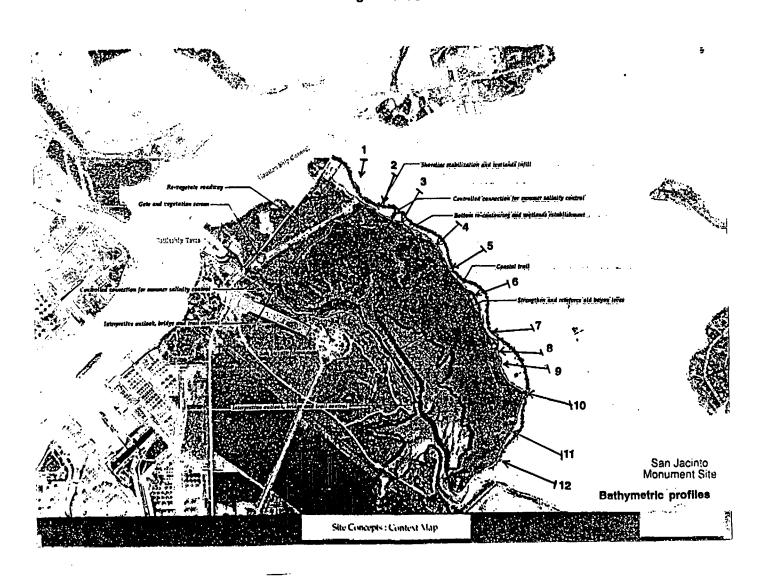


Figure 3-19

San Jacinto Offshore Soundings

Profile	1,2,3			
Time	3/3/94	12:30		
Bearing	230°	M		

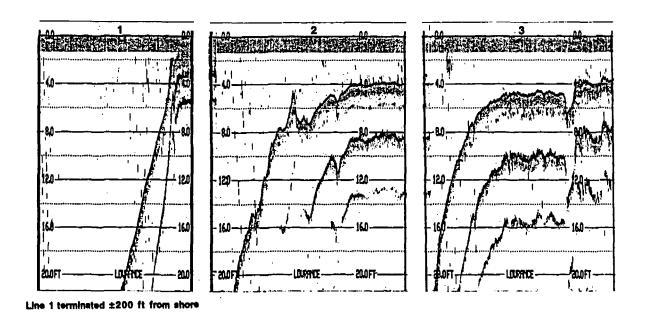


Figure 3-20

San Jacinto Offshore Soundings

Profile	4,5		
Time	3/3/94 12:45	i .	
Bearing	215°M		

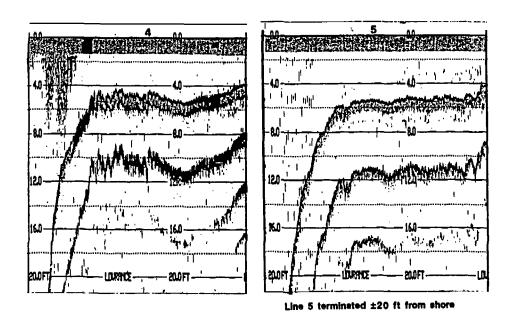


Figure 3-21

San Jacinto Offshore Soundings

Profile	6,7		
Time	3/3/94 13:00		
Bearing	240°M		

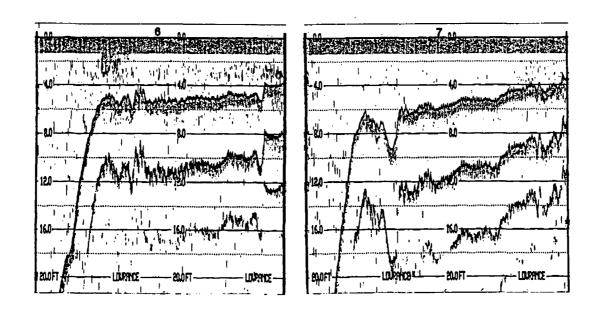


Figure 3-22

San Jacinto Offshore Soundings

Profile	8,9			
Time	3/3/94	13:15		
Bearing	255°N	1		

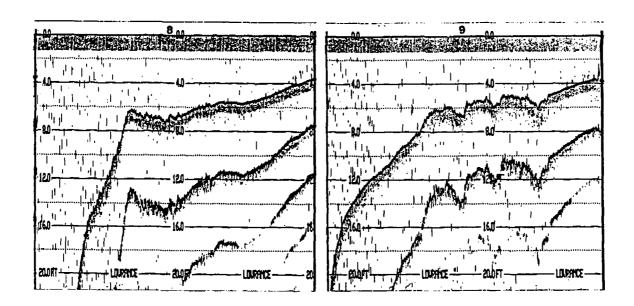


Figure 3-23

San Jacinto Offshore Soundings

Profile 10,11
Time 3/3/94 13:35
Bearing 285°M

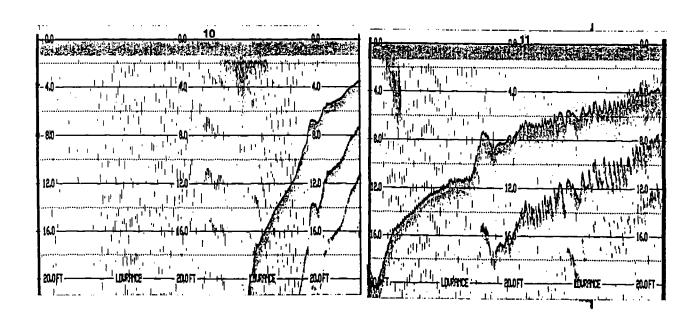


Figure 3-24

San Jacinto Offshore Soundings

Profile	12		
Time	3/3/94 13:50		
Bearing	290°M		

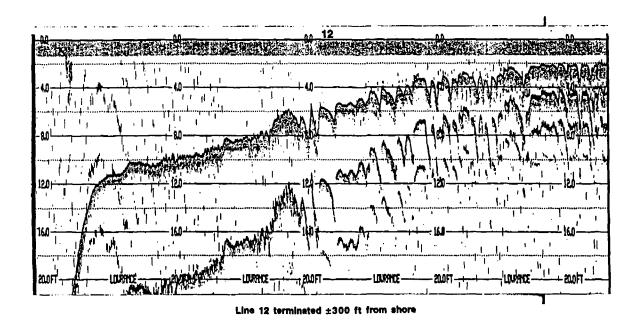
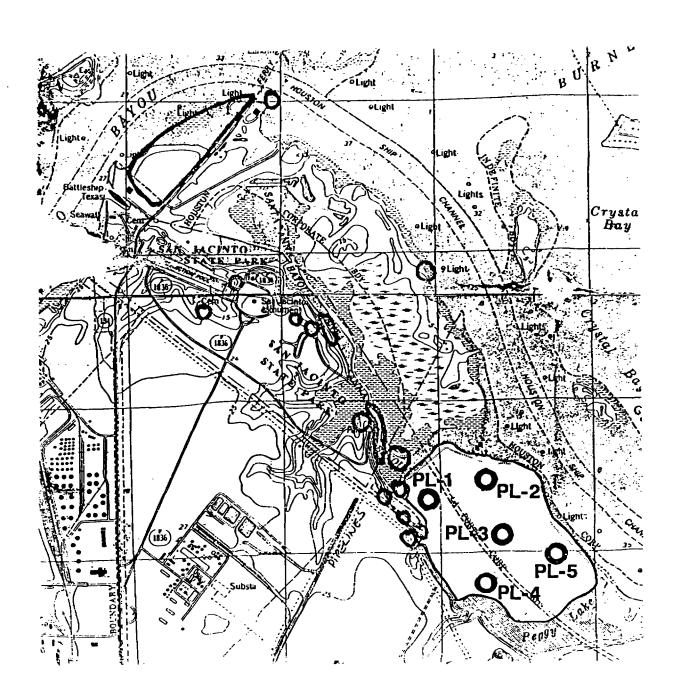


Figure 3-25



PEGGY LAKE SAMPLE LOCATIONS

APPENDIX A LABORATORY ANALYTICAL REPORTS

Sample No.	Sample Collected Date	Location
S19A000301	3/03/94	North Area
S19A000302	3/03/94	Central Area
S19A000303	3/03/94	Perimeter
S19A000304	3/03/94	West Pond
S19A000305	3/03/94	East Pond
- S19A000401	3/04/94	North Area
_ S19A000402	3/04/94	South Area
_ S19A000403	3/04/94	PL1-PL5
— S19A000501	3/07/94	MPS-1
— S19A000502	3/07/94	0S-1
S19C000301	3/04/94	# 3
- \$19E000302	3/04/94	MP=3
S19F000101	3/05/94	1-D
S19F000102	3/05/94	1 - S
S19F000103	3/05/94	2-C
S19F000104	3/05/94	4-S
S19F000105	3/05/94	5 - S
S19F000106	3/05/94	6-S
- S19F000107	3/05/94	MP1
S19F000108	3/05/94	MP2

10-MR-1994

Paga 1

Summary of Analytical Results

Date received: 4-MAR-1994	Oustoner: FING ,INC.	Ġ
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Job name: H94-03.51

	•	Sarples						
Constant lather ID Sampling Point Date Sampled Customer ID		51-001 CA CC 3-FAR-1994 LAB ELAYK NA	51-002 X 3-MR-1994 S19400301 M	51-003 CA CC 3-14-19-19-19-19-19-19-10-10-10-10-10-10-10-10-10-10-10-10-10-	51-004 OL CC 3F122-1994 519200301 MS	51-005 X 3-427-1994 819400302 174	51-006 X 3-149-1994 519400303 194	
Facaneters	Units							
Total Organic Delogers (Solid) Analyst: RNS Dete/Time: 03/07/94 10:00 Dilution: 1.0	ng/Kg	<0.0	⊄ 5.0	≪5.0	110 *	≪4.0	<25.0	
Total Pet. Hydrocarbons (Solid) Analyst: ET/JCB Date/Tima: 03/09/94 10:00 Dilution: 1.0	mg/Kg	⊘ 5.0	<31.0	≪11.0	99.3 *	≪30.0	€2.0	

* - % Recovery NR - Not Required NA - Not Applicable

10-MR-1994

Page 2

Surmary of Analytical Pesults

Date received: 4-MAR-1994

Oustoner: FMG , INC.

Job nama: #94-03.51

_			Suples			
	Chester Labilet ID Sampling Point Date Sampled Customer ID		51-007 X 3-MRR-1994 S194000304 NA	51-008 X 3-1497-1994 S194000306 NA	MR-1994	
_	Permeters	Units				
-	Total Organic Halogens (Solid) Analyst: RNS Data/Time: 03/07/94 10:00 Dilution: 1.0	ng/Kg	₹ 26.0	≪5.0		
_	Total Pet. Hydrocerbons (Solid) Analyst: EII/JOB Date/Time: 03/09/94 10:00 Dilution: 1.0	ncy/Ro	g 54.0	€2.0		
_	* - % Recovery NR - Not Required NA - Not Applicable					

..80717

INST ID: 4020

BAMPLE NUMBER: 817A000301

DRGANICE ANALYBIS DATA SHEET

BROWNWOOD

ABAILT NORTH AREA

LANGRATORY NAME: CHESTER LABNET

LAB BAMPLE ID NO.: 940208102 SOILS

DATA RELEASE AUTHORIZED BY:.... DATE SAMPLE RECEIVED: 03/07/94

VOLATILES

CONCENTRATION: LOW DATAFILE: RU03051V02

DATE ANALYZED: 03/11/94 DILUTION FACTOR: 1. 20

•		COMPOUND	DETECTION AMOUNT LIMIT FOUND (MICROGRAMS / KG)	
	CØ10	CHLOROMETHANE BROMOMETHANE VINYL CHLORIDE CHLOROETHANE METHYLENE CHLORIDE ACETONE CARBON DIBULFIDE 1.1-DICHLOROETHENE 1.1-DICHLOROETHENE 1.2-DICHLOROETHENE (TOTAL) CHLOROFORM 1.2-DICHLOROETHANE 2-BUTANDNE 1.1.1-TRICHLORDETHANE CARBON TETRACHLORIDE VINYL ACETATE BROMODICHLOROMETHANE 1.2-DICHLOROPROPENE TRICHLOROETHENE OIB-1.3-DICHLOROPROPENE TRICHLOROETHENE DIBROMOCHLOROMETHANE	12 U	
	C015	BROMOMETHANE	12 U	
	CORO	VINYL CHLORIDE	12 U	
	C025	CHLORDETHANE	12 U	
	COBO	METHYLENE CHLORIDE	4 U	
-	C035	ACETONE	12 U	
-	C040	CAREON DIBULPIDE	6 U	
	C045	1.1-DICHLORDETHENE	6 U	
	COSO	1.1-DICHLORDETHANE	6 U	
	COSS	1.2-DICHLORDETHENE (TOTAL)	4 U	
_	COFO	CHLOROFORM	6 U	
	COFA	1.2-DICHLORDETHANE	. 6 U	
	CIID	2-BUTANDNE	15 A	
-	Ciie	1, 1, 1-TRICHLORDETHANE	4 υ	
	C120	CARBON TETRACHLORIDE	6.U	
	C128	VINYL ACETATE	15 0	
	6130	BROMODICHLOROMETHANE	6 U	
_	C140	1.2-DICHLOROPROPANE	6 U	
	C143	CIS-1, 3-DICHLOROPROPENE	6 U	
	C150	TRICHLORGETHENE	6 U	
_	~			
	6160	1, 1, 2+1 RICHLURUETHANE	6 U	
	CIAD	MENTERE	a V	
	C172	TRANS-1.9-DICHLORDFROFENE	6 U	
	C176	S-CHTCKOH I MATATUATE LINEK	1 k U	
	C180	MRUMUFURM	6 U	
	CKUD	ALLEMANTEN I KNUME	. 12 0	
-	6810	MTTBの代かしからかでいかした。 学者学的をあられるとのからかでしかした。	1E U	
	CKEV		4 V	
	CD30	AN TOYC	4 H	
	CE30		4 11	
-		1.1.2-TRICHLORDETHANE BENZENE TRANE-1.Q-DICHLORDEROPENE 2-CHLORDETHYLVINYLETHER BROHOFORM 4-METHYL-2-PENTANONE 2-HEXANONE TETRACHLORDETHENE 1.1.2.2-TETRACHLORDETHANE TOLUENE CHLORDBENZENE ETHYLBENZENE STYRENE	7 H	
	CDAR	新するない。 ・ はまればない。 ・ はまればない。	w V A U	
	CESO	XYLENES (TOTAL)	άŬ	
		winding / [GINE!	U U	

U = UNDETECTED AT THE LISTED DETECTION LIMIT

J . COMPOUND IS PRESENT, BUT BELOW THE LISTED DETECTION LIMIT

INST ID: 4020

CHESTER DC # ---- 8

BAMFLE NUMBER: B17A000302

DROANICE ANALYSIS DATA SHEET

BROWNWOOD CENTRAL AREA

LAPORATORY NAME: CHESTER LABNET

LAS SAMPLE ID NO. : 940305105

SOILS

SAMPLE MATRIX: SOIL

DATA RELEASE AUTHORIZED BY: DATE SAMPLE RECEIVED: 03/07/94

VOLATILES

CONCENTRATION: LOW

DATE ANALYZED: 03/11/94

DATAFILE: RU03051V05 DILUTION FACTOR: 1.20

_	ار چې د او د د د د د د د د د د د د د د د د د	COMPQUND)	DETECTION AMOUNT LIMIT FOUND (MICROGRAMS / KG)	
	C010 C015 C020 C025	CHLOROMETHANE BROMOMETHANE VINYL CHLORIDE CHLOROETHANE METHYLENE CHLORIDE ACETONE CARBON DISULFIDE 1,1-DICHLOROETHANE 1,2-DICHLOROETHANE 1,2-DICHLOROETHANE 2-BUTANONE 1,1.1-TRICHLOROETHANE CARBON TETRACHLORIDE VINYL ACETATE BROMODICHLOROMETHANE 1,2-DICHLOROMETHANE 1,2-DICHLOROMETHANE 1,2-DICHLOROMETHANE 1,2-DICHLOROMETHANE 1,2-DICHLOROMETHANE 1,2-DICHLOROMETHANE 1,2-DICHLOROMETHANE 1,2-DICHLOROMETHANE	12 U 12 U 12 U 12 U	
-	C030 C035 C040	METHYLENE CHLORIDE ACETONE CARBON DISULFIDE	4 Ü 12 U 4 U	
_	CO50 CO53 CO60	1,1-DICHLOROETHANE 1,2-DICHLOROETHENE (TOTAL) CHLOROFORM	4 U 4 U	
_ ·	C110 C115 C120	2-BUTANONE 1, 1. 1-TRICHLORDETHANE CARBON TETRACHLORIDE	12 U	
	C125 C130 C140 C142	VINYL ACETATE BROMODICHLOROMETHANE 1.2-DICHLOROPROPANE C18-1.2-DICHLOROPROPENE	12 V	
•	C16D	TRICHLORDETHENE DIBROMOCHLOROMETHANE 1.1.2-TRICHLOROETHANE DENZENE	6 U 6 U	
-	C172 C176 C180 C206	TRANS-1: 3-DICHLOROPROPENE 2-OHLOROETHYLYINYLETHER BROMOFORM 4-METHYL-2-PENTANONE	6 Ü 12 U 6 U	
_	C210 C220 C225	DENZENE TRANS-1.3-DICHLOROPROPENE 2-CHLOROETHYLYINYLETHER BROMOPORM 4-METHYL-2-PENTANONE 2-HEXANONE TETRACHLOROETHENE 1.1.2.2-TETRACHLOROETHANE TOLUENE CHLOROBENZENE ETHYLDENZENE STYRENE	9 N 9 N 15 N	
-				
	CRSO	XYLENES (TOTAL)	6 U	

U = UNDETECTED AT THE LISTED DETECTION LIMIT

J . COMPOUND IS PRESENT, BUT BELOW THE LISTED DETECTION LIMIT

INST ID: 4020

CHESTER DC # ---- 8

BAMPLE NUMBER: B17AD00303

DROANICE ANALYSIS DATA SHEET

BROWNWOOD PERIMETER AREA

LABORATORY NAME: CHESTER LABNET

LAB BAMPLE ID NO.: 940305106

SOILS

BAMPLE MATRIX: BOIL

DATA RELEASE AUTHORIZED BY:..... DATE SAMPLE RECEIVED: 03/07/94

VOLATILES

CONCENTRATION: LOH

DATAFILE: RUGGOBIVO6

DATE ANALYZED: 03/11/94

DILUTION FACTOR: 1.20

_	an an an ag as as as ay niyê, _{ay}	COMPOUND	Limit F (Micrograms / Kg)	ANDUNT CANDO CANDO
	C010	CHLORDMETHANE BROMOMETHANE VINYL CHLORIDE CHLORDETHANE METHYLENE CHLORIDE ACETONE	12 U	
_	CO15	BROMOMETHANE	12 U	
	C050	VINYL CHLORIDE	12 U	
	C025	CHLORDETHANE	12 U	•
_	CO3D	METHYLENE CHLORIDE	ė U	
	C035	CHLORGETHANE METHYLENE CHLORIDE ACETONE CARBON DIBULFIDE 1.1-DICHLORDETHENE 1.1-DICHLORDETHANE 1.2-DICHLORDETHENE (TOTAL) CHLOROFORM 1.2-DICHLORDETHANE 2-BUTANONE 1.1.1-TRICHLORDETHANE CARBON TETRACHLORIDE VINYL ACETATE BROWDDICHLORDETHANE	12 U	
	CQ4D	CARBON DIBULFIDE	6 U	
	C045	1.1-DICHLORDETHENE	6 U	
-	COSD	1.1-DICHLORDETHANE	& U	
	C023	1.2-DICHLORGETHENE (TOTAL)	6 U	
	COPO	CHLOROFORM	6 U	
_	C065	1.2-Dichlordethane	6 U	
_	C110	R-BUTANONE	12 U	
	C115	1, 1, 1-TRICHLORDETHANE CARBON TETRACHLORIDE VINYL ACETATE BROMODICHLOROMETHANE 1, 2-DICHLOROPROPANE CIS-1, 3-DICHLOROPROPENE TRICHLOROETHENE DIBROMOCHLOROMETHANE 1, 1, 2-TRICHLOROETHANE	6 U	
	CIEC	CARBON TETRACHLORIDE	& U	
-	C125	VINYL ACETATE	12 0	
	C130	BROMODICHLOROMETHANE	4 U	
	C140	1,2-DICHLOROPROPANE	6 U	
	C143	C18-1, 3-DICHLOROPROPENE	& U	
	C150	TRICHLORDETHENE	6 U	
	C155	DIBROMOCHLOROMETHANE	6 V	
	C160	1, 1, 2-TRICHLORDETHANE	6 0	
_	Pr 7 (12 th	BENZENE	6 U	
	C172	TRANS-1.3-DICHLOROPROPENE	6 U	
	C175	2-CHLOROETHYLVINYLETHER	12 U	
	C180	BROMOFORM	6 U	
_	CROS	4-METHYL-R-PENTANONE	is o	
	C210	2-HEXANDNE	12 U	
	CSSP	TETRACHLOROETHENE	6 U	
	C225	1, 1, 2, R-TETRACHLORDETHANE	6 0	
	6539	1 OLVENE	6 0	
	CRSS	CHLOROBENZENE	6 0	
_	C240	TRANS-1.3-DICHLOROPROPENE 2-CHLOROETHYLVINYLETHER BROMOFORM 4-METHYL-2-PENTANONE 2-HEXANDNE TETRACHLOROETHENE 1.1.2.2-TETRACHLOROETHANE TOLUENE CHLOROBENZENE ETHYLDENZENE STYRENE	0 V	
-	C245 C250	STYRENE XYLENES (TOTAL)		
	に関わり	ATECRED (TUINE)	6 U	

U - UNDETECTED AT THE LISTED DETECTION LIMIT

J = COMPOUND IS PRESENT, BUT BELOW THE LISTED DETECTION LIMIT

INST ID: 4020 CHESTER DC # ---- 5

EAMPLE NUMBER: 817A000304

DROANICE ANALYBIB DATA SHEET

BROWNWOOD WEST POND SEDMONTS

LABORATORY NAME: CHESTER LABNET LAB BAMPLE ID NO.: 940305107

SAMPLE MATRIX: SOIL

DATA RELEASE AUTHORIZED BY: DATE BAMPLE RECEIVED: 03/07/94

VOLATILES

CONCENTRATION: LOW

. DATE ANALYZED: 03/11/94

DATAFILE: RU03051V07

6 U

6 U

6 U

DILUTION FACTOR: 1.30

	сангочко	DETECTION LIMIT	AMBUNI FOUND
		(MICROORAMS	/ Ke)
CQ10	CHLOROMETHANE	13 U	
C015	BROMOMETHANE	13 U	
6050	VINYL CHLORIDE	13 U	
COZS	CHLOROETHANE	13 U	
C030	METHYLENE CHLORIDE	6 U	
COBB	ACETONE	13	24
CQ40	CARBON DIBULFIDE	6 U	
	1.1-DICHLOROETHENE	6 U 13 6 U	
	1/1-DICHLOROFIHANE	6 U	
	1.2-DICHLORDETHENE (TOTAL)	6 U	
COAD	CHLOROFORM 1, 2-DICHLORDETHANE 2-BUTANONE	6 U `	
CQ65	1,2-Dichlordethane	6 U	
	2-BUTANONE	6 U 6 U	
	1, 1, 1-TRICHLORDETHANE	6 U	
	CARBON TETRACHLORIDE	6 U	
C125	VINYL ACETATE	6 U 13 U 4 U 6 U 4 U	
C130	BROMDDICHLORDMETHANE	4 U	
	1.2-Dichlordpropane	6 U	
	CIS-1.3-DICHLOROPROPENE	& U	
	TRICHLORDETMENE	6 V	
C155	DIBRUMOCHLOROMETHANE	6 U	
C160	1.1.2-TRICHLORDETHANE	6 U	
C145	BENZENE	6 U	
C172	Trans-1,3-Dichloropropene	6 U	
C175	2-CHLORDETHYLVINYLETHER	ະອິບ 6 ບ	
C180	BROMDFORM	6 U	
C205	4-METHYL-2-PENTANONE	18 U	
CS10	2-HEXANDNE	13 U	
C550	TETRACHLORDETHENE	Ü	
C552	1, 1, 2, 2-TETRACHLOROETHANE	6 U	
C230	TOLUENE	6 U	
C235	CHLORDBENZENE	6 <u>U</u>	

ETHYLDENZENE

XYLENES (TOTAL)

STYRENE

C240

C245

C280

U = UNDETECTED AT THE LIETED DETECTION LIMIT

J - COMPOUND IS PRESENT, BUT BELOW THE LISTED DETECTION LIMIT

MAR 11'94 16:05 No.008 P.05

FRENCH LIMITED

INST ID: 4020

ID:7133286496

CHESTER DC # ---- B

BAMPLE NUMBER: 819A000305

DROANICS ANALYSIS DATA SHEET

BROWNWOOD

FAST POND

SEDMENTS

LABORATORY NAME: CHESTER LABNET _ LAB SAMPLE ID NO.: 940305108

BAMPLE MATRIX: SDIL

DATA RELEASE AUTHORIZED BY: DATE SAMPLE RECEIVED: 03/07/94

VOLATILES

CONCENTRATION: LOW DATAFILE: RU03051V08

DILUTION FACTOR: 1.30 - DATE ANALYZED: 03/11/94

	P Ny lan ao amin'ny ao ao ao ao	COMPOUND	DETECTION AMOUNT FOUND (MICROGRAMS / KG)	VT)
_	C010	CHLOROMETHANE BROMOMETHANE VINYL CHLORIDE CHLOROETHANE METHYLENE CHLORIDE ACETONE CARBON DISULPIDE 1.1-DICHLOROETHENE 1.1-DICHLOROETHENE 1.2-DICHLOROETHENE CHLOROFORM 1.2-DICHLOROETHANE 2-BUTANONE 1.1.1-TRICHLOROETHANE CARBON TETRACHLORIDE VINYL ACETATE BROMODICHLOROMETHANE 1.2-DICHLOROFROPANE CIS-1.3-DICHLOROFROPENE TRICHLOROETHENE DIBROMOCHLOROMETHANE 1.1.2-TRICHLOROETHANE 1.1.2-TRICHLOROETHANE 1.1.2-TRICHLOROETHANE	13 U	
	C015	Bromomethane	13 U	
	COZO	vinyl chloride	13 U	•
_	CO25	CHLORDETHANE	13 U	
	CORD	METHYLENE CHLORIDE	6 U	
	CO35	ACETONE	13 U 13 U 13 U 4 U 136	J
	G04D	CARBON DIBULFIDE	6 U	
-	C048	1.1-DICHLORDETHENE	έÑ	
	6050	1, 1-DICHLOROETHANE	6 U	
	0053	1.2-DICHLORDETHENE (TOTAL)	6 U	
_	0900	CHLOROFORM	é U	
	COAD	1. 2-DICHLORDETHANE	6 U	
	C110	Z-BUTANDNE	19 U	
_	C115	1.1.1-TRICHLORDETHANE	ė ų	
	C120	CARBON TETRACHLORIDE	6 V	
	C125	VINYL ACETATE	13 0	
	C130	SKUMDDICHLORDMETHANE	6 V	
-	C140	1: Z-UICHLORUPROPANE	6 U	
	C143	C18-1, 3-DICHLORDFROPENE	£ U ·	
	C150	TRICHLORGETHENE	6 U	
-	C155	DINKONUCHLOROMETHANE	6 U	
	C160	1.1.2-TRICHLORDETHANE	6 V	
	C165	TRANS-E A. Story Specification	6 V	
_	C172 C175		6 V	
	C180	K-CHTOKOT I HATCATUATE I HEK	13 U	
	C205	ALMETUVI LELEKUTAKIONE	6 V	
	C510	G-MCAVIVIE G-MCAVIVIE	13 U	
-	CERO	TETPACH OPMETHERS	4 W	
	C225	1.1.5.5.TETPACHINDDETHAND	¥ 11	
	CESO	Tri tiene	7 II	
	CE35	CH DRORENTENE	6 U	
	C240	1.1.R-TRICHLORGETRANE BENZENE TRANS-1.3-DICHLOROPROPENE 2-CHLOROETHYLVINYLETHER BRONGFORM 4-METHYL-2-PENTANONE 2-HEXANONE TETRACHLOROETHENE 1.1.2.2-TETRACHLOROETHANE TOLUENE CHLOROBENZENE ETHYLBENZENE STYRENE	4 U	
	CR45	STYRENE	<u> </u>	
	C250	XYLENES (TOTAL)	4 Ü	
-			– –	

U = UNDETECTED AT THE LISTED DETECTION LIMIT

J = COMPOUND IS PRESENT, BUT BELOW THE LISTED DETECTION LIMIT

Chaster LabNet - HOUSTON

Reported on: 14-MAR-1994

Client Name: FRENCH LIMITED Work Order: H94-03.51
Sample ID: CAPO310 046 Date Collected: 03-MAR-1994

Sample Name: H94-03.51-002 Matrix : SOIL

.. ----

Project No.: S19A Date Received : U4-MAR-1994
Percent Moisture : 19 % Date Extracted : 11-MAR-1994

Client ID : 819A0003 01 Checked by : MJM

Organic Analysis Data Sheet Compounds Analysis by SW846 Method 8080

Date Analyzed: 12-MAR-1994 10:10 Dilution Factor: 1.000

Cas #	Compound	Detection Limits	Detecto Conc. 1	
		·		
309-00-2	ALDRIN	1.7	1.7	U
319-84-6	alpha-bhc	0.42	0.42	U
319-85-7	BETA-BHC	1.2	1.2	U
319-86 - 8	Delta-Bhc	1.2	1.2	ប
58-89-9	GAMMA-BHC/LINDANE	1.2	1.2	U
57-74-9	CHLORDANE	5.8	21	
72-5 4- 8	4,4'-DDD	2.1	2.1	U
72-55-9	4,4'-DDE	1.2	13	
50 -29 -3	4,4'-DDT	5.0	5.0	ប
60-57-1	DIELDRÎN	0.83	3.8	
959-98-8	ENDOSULFAN I	8.3	8.3	n
33213-65-9	endosulfan II	8.3	8.3	ប
1031-07-6	ENDOSULFAN SULFATE	4.2	4.7	ti.
72-20-8	ENDRIN	2.5	2.5	U
7421-93-4	ENDRIN ALDEHYDE	4.2	4.2	U
76-44-8	Heptachlor	1.2	1.2	U
1024-57-3	HEPTACHLOR EPOXIDE	2.1	2.1	ប
72-43-5	METHOXYCHLOR	21	21	ប
8001-35-2	TOXAPHENE	100	100	ប
12674-11-2	AROCLOR-1016	21	21	U
11104-28-2	AROCLOR-1221	21	21	ប
11141-16-5	AROCLOR-1232	21	21	U
53469-21-9	AROCLOR-1242	21	21	ช
12672-29-6	AROCLOR-1246	21	21	U
11097-69-1	Aroclor-1254	21	21	u
11096-82-5	AROCLOR-1260	21	21	U

U = Undetected at the Listed Detection Limit .

J - Compound is present, but below the Detection Limit.

B = Compound is also found in Blank.

Chester LabNet - HOUSTON

THE PROPERTY OF

Reported on: 14-MAR-1994

Client Name: FRENCH LIMITED Work Order: H94-03.51 Sample ID: CAPO310-046 Date Collected: 03-MAR-1994

Sample Name: H94-03.51-005 Katrix : SOIL

Project No.: S19A Date Received : 04-MAR-1994
Percent Moisture : 16 % Date Extracted : 11-MAR-1994

Client ID : 519A0003 02 Checked by : MTM

Organic Analysis Data Sheet Compounds Analysis by SW846 Method 8080

Date Analyzed: 12-MAR-1994 08:37 Dilution Factor: 1.000

		Detection	Detected
Cas #	Compound	Limits	Conc. ug/kg
309-00-2	ALDRIN	1.6	1.6 U
319-84-6	ALPHA-BHC	0.40	0.40 ย
319-85-7	BETA-BHC	1.2	1.2 U
319-86 - 8	DELTA-BHC	1.2	1.2 U
58-89-9	GAMMA-BHC/LINDANE	1.2	1.2 ប
57-74-9	CHLORDANE	5.6	5.6 U
72-54-8	4 . 4 ' - DDD	2.0	2.0 11
72-55-9	4,4'-DDE	1.2	1.2 U
50-29-3	4,4'-DDT	4.8	4.8 U
60-57-1	DIELDRIN	0.80	0.80 U
959-98-8	ENDOSHLFAN T	8.0	8.0 U
33213-65-9	ENDOSULFAN II	8.0	8.0 U
1031-07-8	ENDOSULFAN SULFATE	4.0	4.0 U
72-20-8	ENDRIN	2.4	2.4 U
7421-93-4	ENDRIK ALDEHYDE	4.0	4.0 U
76-44-8	HEPTACHLOR	1.2	1.2 U
1024-57-3	HEPTACHLOR EPOXIDE	2.0	2.0 U
72-43-5	NETHOXYCKLOR	20	20 บ
8001-35-2	TOXAPHENE	36	96 U
12674-11-2	ABOCLOR-1016	20	20 บ
11104-28-2	AROCLOR 1221	20	20 U
11141-16-5	AROCLOR-1232	20	20 U
53469 21 9	AROCLOR-1242	20	20 U
12672-29-6	AROCLOR-1248	20	20 U
11097 69-1	AROCLOR-1254	20	20 U
11096-82-5	AROCLOR-1260	20	20 U

U = Undetected at the Listed Detection Limit .

J = Compound is present, but below the Detection Limit.

B = Compound is also found in Blank.

Chaster LabNet - HOUSTON

Reported on : 9-MAR-1994

Client Name: FRENCH LINITED Work Order: H94-03.51
Sample ID: CBP0307-034 Date Collected: 03-MAR-1994
Eample Name: H94-03.51-005 Matrix: SOIL

Project No.: S19A Date Received: 04-MAR-1994

Client ID : 619A0003 02 Date Extrauted : 07-MAR-1994

Checked by : MJM

Organic Analysis Data Sheat Compounds Analysis by SW846 Nethod 8080

Date Analyzed : 8-MAR-1994 15:35 Dilution Factor : 1.000

Cas #	Compound	Detection Limits	Detected Conc. ug/kg	
12674-11-2	AROCLOR-1016	20	20	Ð
11104-28-2	AROCLOR-1221	20	20	U
11141-16-5	AROCLOR-1232	20	20	u
53469-21-9	AROCLOR-1242	20	20	u
12672-29-6	AROCLOR-1248	20	20	U
11097-69-1	AROCLOR-1254	20	20	U
11096-82-5	AROCLOR-1260	20	20	Ū
	TOTAL PCBS *	20	20	Ū

^{* =} Total PCBs calculated as found AR 1242.

U = Undetected at the Listed Detection Limit .

J = Compound is present, but below the Detection Limit.

B = Compound is also found in Blank.

Chester LabNet - HOUSTON

Reported on: 14-MAR-1994

Client Name: FRENCH LIMITED Work Order: H94-03.51 Sample 1D: CAPUSIU-047 Date Collected: 03-MAR-1994

Sample Name: H94-03.51-006 Natrix : SOIL

Project No.: S19A Date Received : 04-MAR-1994
Percent Moisture: 19 % Date Extracted : 11-MAR-1994

Client ID : S19A0003 03 Checked by : MDM

Organic Analysis Data Sheet Compounds Analysis by SW846 Nathod 8080

Date Analysed: 12-NAR-1994 09:24 Dilution Factor: 1.000

Cas #	Conpound	Detection Limits	Detected Conc. ug/kg
309-00-2	ALDRIN	1.7	1.7 U
319-84-6	ALPHA-BHC	0.42	0.42 U
319-85-7	Beta-Bhc	1.2	1.2 U
319-86-8	DELTA-BHC	1.2	1.2 U
58-89-9	GAMMA-BRC/LINDANE	1.2	1.2 V
57-74-9	CHLORDANE	5.6	5.8 U
72-54-8	4,4'-DDD	2.1	2.1 U
72-55-9	4,4'-DDE	1.2	13
50-29-3	4,4'-DDT	5.0	5.0 บ
60-57-1	DIELDRIN	0.83	0.83 U
959-98-8	ENDOGULFAN I	8.3	8.3 U
33213-65-9	endosulfan II	8.3	8.3 U
1031-07-8	endosulfan Sulfate	4.2	4.2 U
72-20-8	ENDRIN	2.5	2.5 U
7421-93-4	ENDRIN ALDENYDE	4.2	4.2 U
76-44-6	Heptachlor	1.2	1.2 U
1024-57-3	HEPTACHLOR EPOXIDE	2.1	2.1 U
72-43-5	NETHOXYCHLOR	21	21 V
6001-35-2	TOXAPHENE	100	100 U
12674-11-2	AROCLOR-1016	21	21 V
11104-26-2	AROCLOR-1221	21	21 U
11141-16-5	AROCLOR-1232	51	21 U
53469-21-9	AROCLOR-1242	21	21 U
12672-29-6	AROCLOR-1248	21	21 ប
11097-69-1	AROCLOR-1254	21	21 V
11096-82-5	AROCLOR-1260	21	21 U

U = Undetected at the Listed Detection Limit .

J = Compound is present, but below the Detection Limit.

B = Compound is also found in Blank.

Chester Labbet - HOUSTON

Reported on: 9-MAR-1994

Client Name: FRENCH LINITED Work Order: H94-03.51
Sample ID: CBP0307-035 Date Collected: 03-MAR-1994

Project No.: \$19A Date Received : 04-MAR-1994 Client ID : \$19A0003 03 Date Extracted : 07-MAR-1994

Checked by : M5M

Organic Analysis Data Sheet Compounds Analysis by SW846 Nethod 8080

Date Analyzed: 8-MAR-1994 16:22 Dilution Factor: 1.000

Cas #	Compound	Detection Limits	Date: Conc	sted . ug/kg
12674-11-2	AROCLOR-1016	21	21	U
11104-28-2	AROCLOR-1221	21	21	ប
11141-16-5	AROCLOR-1232	21	21	u
53469-21-9	AROCLOR-1242	21	21	u
12672-29-6	AROCLOR-1248	21	21	U
11097-69-1	AROCLOR-1254	21	21	U
11096-82-5	AROCLOR-1260	21	21	u
	TOTAL PCBS *	21	21	u

^{* =} Total PCBs calculated as found AR 1242.

U = Undetected at the Listed Detection Limit .

J = Compound is present, but below the Detection Limit.

B = Compound is also found in Blank.

ı SOIL

Chester LabNet - HOUSTON

Reported on: 14-MAR-1994

Client Name: FRENCH LIMITED Work Order: H94-03.51 Sample ID: CAP0310-053 Date Collected: 03-MAR-1994

Sample Hame: H94-03.51-007 Matrix

Project No.: \$19A Date Received : 04-MAR-1994
Percent Noisture : 23 % Date Extracted : 11-MAR-1994

Client ID : S19A0003 04 Checked by : MJ

Organic Analysis Data Sheet Compounds Analysis by SW846 Method 8080

Date Analysed: 12-MAR-1994 14:03 Dilution Factor: 1.000

		Detection	Detected	
Cas #	Compound	Limits	Conc. ug/kg	
309-00-2	ALDRIN	1.7	1.7 ป	
319-84-6	ALPHA-BHC	0.44	0.44 U	
319-85-7	BETA-BHC	i.3	1.3 y	
319-86-8	DEL7A-BHC	1.3	1.3 U	
58-89-9	GAMNA-BHC/LINDANE	1.3	1.3 V	
57-74-9	CHLORDANE	6.1	6.1 U	
72-54-8	4.4'-DDD	2.2	2.2 U	
72-55-9	4.4'-DDE	1.3	1.9 V	
50-29-3	4,4'-DDT	5.2	5.2 #	
60-57-1	DIELDRIN	0.87	0.87 V	
959-98-8	ENDOSULFAN I	8.7	8.7 V	
33213-65-9	ENDOSULFAN II	8.7	8.7 V	
1031-07-8	ENDOSULFAN SULFATE	4.4	4.4 U	
72-20-8	ENDRIN	2.6	2.6 ป	
7421-93-4	ENDRIN ALDEHYDE	1.1	1.1 U	
76-44-8	HEPTACHLOR	1.3	1.3 V	
1024-57-3	EEPTACHLOR EPOXIDE	2.2	2.2 y	
72-43-5	METKOXYCHLOR	22	22 ย	
8001-35-2	TOXAPHENE	110	110 U	
12674-11-2	AROCLOR-1016	22	22 U	
11104-28 2	AROCLOR-1221	22	22 U	
11141-16-5	AROCLOR-1232	22	22 U	
53469-21-9	AROCLOR-1242	22	22 V	
12672-29-6	AROCLOR-1246	22	22 U	
11097-69-1	AROCLOR-1254	22	22 V	
11096-82-5	AROCLOR-1260	22	22 U	

U = Undetected at the Listed Detection Limit .

J = Compound is present, but below the Detection Limit.

B = Compound is also found in Blank.

· MIM

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Chester Labbet - HOUSTON

Reported on : 9-MAR-1994

Client Name : FRENCH LIMITED Work Order : H94-03.51 Sample ID : CBP0307-036 Date Collected : 03-MAR-1994 Sample Name : H94-03.51-007 Matrix 1 SOIL Project No. : Sl9A Date Received : 04-MAR-1994 Client ID : 819A0003 04 Date Extracted : 07-MAR-1994 Checked by

Organic Analysis Data Sheet Compounds Analysis by SW846 Nethod 5050

Date Analyzed: 8-MAR-1994 17:08 Dilution Factor: 1.000

Cas #	Compound	Detection Limits	Detec Conc.	ted ug/kg
12674-11-2	AROCLOR-1016	22	22	U
11104-28-2	AROCLOR-1221	22	22	U
11141-16-5	AROCLOR-1232	22	22	u
53469-21-9	AROCLOR-1242	22	22	U
12672-29-6	AROCLOR-1248	22	22	บ
11097-69-1	AROCLOR-1254	22	22	U
11096-82-5	AROCLOR-1260	22	22	Ü
	TOTAL PCBS *	22	22	Ū

^{* =} Total PCBs calculated as found AR 1242.

U = Undetected at the Listed Detection Limit .

J = Compound is present, but below the Detection Limit.

B = Compound is also found in Blank.

Chester LabNet - HOUSTON

Reported on: 14-MAR-1994

Client Name: FRENCH LIMITED Work Order: H94-03.51 Sample ID: CAPO310-052 Date Collected: 03-MAR-1994

Sample Name: H94-03.51-008 Matrix : SOIL

Project No.: 519A Date Received : 04-MAR-1994
Percent Noisture : 22 % Date Extracted : 11-MAR-1994

Client ID : S19A0003 05 Checked by : /NJM

Organic Analysis Data Sheet Compounds Analysis by SW846 Method 8080

Date Analyzed: 12-MAR-1994 13:16 Dilution Factor: 1.000

		Detection	Detected	
Cas #	Compound	Limits	Conc. u	g/kg
309-00-2	ALDRIN	1.7	1.7	U
319-84-6	ALPHA-BHC	0.43	0.43	ប
319-85-7	BETA-BHC	1.3	1.3	U
319-86-8	DELTA-BHC	1.3	1.3	U
58-89-9	GAMMA-BHC/LINDANE	1.3	1.3	IJ
57-74-9	CHLORDANE	6.0	6.0	Ü
72-54-8	4,4'-DDD	2.1	2.1	ប
72-55-9	4.4'-DDE	1.3	1.3	U
50-29-3	4,4'-DDT	5.1	5.1	ט
60-57-1	DIELDRIN	0.86	0.86	U
959-98-8	ENDOSULFAN I	8.6	8.6	U
33213-65-9	ENDOSULFAN II	8.6	8.6	U
1031-07-8	ENDOSULFAN SULFATE	4.3	4.3	U
72-20-8	ENDRIN	2.6	2.6	U
7421-93-4	ENDRIN ALDERYDE	4.3	4.3	U
76-44-B	HEPTACHLOR	1.3	1.3	u
1024-57-3	HEPTACHLOR EPOXIDE	2.1	2.1	U
72-43-5	HETHOXYCHLOR	21	21	U
8001-35-2	TOXAPHENE	100	100	ט
12674-11-2	AROCLOR-1016	21	21	u
11104-26-2	AROCLOR-1221	21	21	ט
11141-16-5	AROCLOR-1232	21	21	IJ
53469-21-9	AROCLOR-1242	21	21	U
12672-29-6	AROCLOR-1248	21	21	U
11097-69-1	AROCLOR-1254	21	21	u
11096-82-5	AROCLOR-1260	21	21	ប

U = Undetected at the Listed Detection Limit .

J = Compound is present, but below the Detection Limit.

E = Compound is also found in Blank.

Chester LabNet - HOUSTON

Reported on : 9-MAR-1994

Client Name: FRENCH LIMITED Work Order: H94-03.51
Sample ID: CBP0307-037 Date Collected: 03-MAR-1994

Sample Hame: H94-03.51-008 Matrix : SOIL

Project No.: S19A Date Received : 04-MAR-1994

Client ID : \$19A0003 05 Date Extracted : 07-MAR-1994

Checked by : MJM

Organic Analysis Data Sheet Compounds Analysis by SW646 Method 8080

Date Analyzed: 8-MAR-1994 17:55 Dilution Factor: 1.000

Cas #	Compound	Detection Limits	Dete: Conc	cted . ug/kg
12674-11-2	AROCLOR-1016	21	21	Ü
11104-28-2	AROCLOR-1221	21	21	บ
11141-16-5	AROCLOR-1232	21	21	U
53469-21-9	AROCLOR-1242	21	21	U
12672-29-6	AROCLOR-1248	21	21	Ü
11097-69-1	AROCLOR-1254	21	21	ប
11096-82-5	AROCLOR-1260	21	21	U
	TOTAL PCBS *	21	21	U

^{* =} Total PCBs calculated as found AR 1242.

U = Undetected at the Listed Detection Limit .

J = Compound is present, but below the Detection Limit.

B = Compound is also found in Blank.

U.S. EPA - CLP

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO. 000301

Lab Name: CMESTER LABNET-HOUSTON Contract:

Lab Code: KEYTX Case No.: \$19A SAS No.:

SDG No .:

_ matrix (soil/water): SOIL

Lab Sample ID: 940351002

Level (low/med): LOW

Date Received: 03/04/94

─ % Solids:

80.0

Concentration Units (ug/L or mg/kg dry weight); MG/KG

CAS No.	Analyte	Concentration	c	Q	М
7429-90-5	Aluminum	5540.00			P
7440-36-0	Antimony_	7.00	!υ¦		¦P
7440-38-2	Arsenic		;	SN	\F
7440-39-3			B:		¦P
7440-41-7	Beryllium		101		¦P
7440-43-9	Cadmium	1.20	101		P
7440-70-2	Calcium		. !		ŀΡ
7440-47-3	Chromium_	8,00	1 1		¦P
7440-48-4			8!		ļp
7440-50-8	Copper		1 1		¦Ρ
7439-89-6			1 1		P
7439-92-1		45.00	1 1		¦F
7439-95-4	Magnesium	656.00	B		P
7439-96-5	Manganese	80.80	1 :		} P
7439-97-6			U	*	(CV
7440-02-0			181		!P
7440 - 09 7			U		P
7782-49-2	Selenium	0,25	U		F
7440-22-4			U;		!P
7440-23-5	Sodium	1010.00	B	E	iP
7440-28-0		_	ไปใ		16
7440-62-2	[Vanadium]	12.80	1 !		;P
7440-66-6	Zinc	32.20		E	P
	Cyanide	; 1	1 1		NR

Sicr	Before:	DK.GRAY	Clarity	Before:
-2 -	50.0.0	0116011111	- Lui 20/	

[exture:

COARSE

olor After: COLORLESS

Clarity After:

Artifacts:

omments:

n80732

U.S. EPA - CLP

EPA SAMPLE NO. INORGANIC ANALYSIS DATA SHEET 000302

Lab Name: CHESTER LABNET-HOUSTON Contract:

Lat Code: KEYTX Case No.: \$19A SAS No.: SDG No.:

_ Mat:ix (soil/water): SOIL

Lab Sample ID: 940351005

Level (low/med): LOW

Date Received: 03/04/94

₩ % Solids:

83.3

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	c	٩	М
7429-90-5	Aluminum_	3600.00	;		P
7440-36-0	Antimony_		101		IP {
7440-38-2	Arsenic		B	+N	\F
7440-39-3	Barium		B:		IP I
7440-41-7	Beryllium	0.24	lul		ĮP Į
7440-43-9	Cadmium		!U!		IP I
7440-70-2	Calcium	602.00	B		IP ;
7440-47-3			1		ĮΡ į
7440-48-4	Cobalt	2.00	B!		P :
7440-50-8	Copper	_	 8		P
7439-89-6	Iron	_	1		P
7439-92-1	Lead	11.10	1 1		F
7439-95-4	Magnesium	334.00	18		ip i
7439-96-5	Manganese		1 1		ָר בּוֹ
7439-97-6			juj	*	CV
7440-02-0		_	10		P
7440-09-7	Potaccium		įψį		P
7782-49-2	Selenium_	0.24	U		18
7440-22-4	SILVer		U		ļp :
7440-23-5	Sodium		В	Ε	P
7440-28-0	Thallium_		اَنَا		įF ¦
7440-62-2	Vanadium_	<u>.</u>	B		P
7440-66-6	Zinc		j	E	P
i	Cyanide			 	!NR

plor Sefore: OK.GRAY Clarity Before:

Texture: COARSE

olor After: COLORLESS Clarity After:

Artifacts:

ommence:

U.S. EPA - CLP

EPA SAMPLE NO. INORGANIC ANALYSIS DATA SHEET 000303 Lab Name: CHESTER LABNET-HOUSTON Contract:

Lab Code: KEYTX Case No.: S19A SAS No.: SDG No.:

Matrix (soil/water): SOIL

Lab Sample ID: 940351006

Level (low/med): LOW

Date Received: 03/04/94

-% Solids:

80.6

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	c	Q	М
7429-90-5	Aluminum_	2520.00			P
7440-36-0	Antimony_	6.90	¦U¦		¦Ρ
7440-38-2	Arsenic	0.99	U	WN	(F
	Barium		{B;		ĺΡ
7440-41-7	Beryllium	0.25	10;		IP
7440-43-9	Cadmium	1.20	U		P
7440-70-2	Calcium	629.00	¦B;		¦Ρ
7440-47-3	Chromium_	3.30	1 1		ŀ₽
7440-48-4	Cobalt	1.20	101		IP.
7440-50-8	Copper	2.90	;B;		¦P
7439-89-6			1 1		ŀΡ
7439-92-1		13.00	1 1		F
7439-95-4	Magnesium		B;		P
7439-96-5	Manganese	63.50	1 1		ļΡ
7439-97-6			U	*	CV
7440-02-0	Nickel		101		¦P
7440-09-7	!Potassium	278.00	U		P
7782-49-2	Selenium_	0.25	U		15
7440-22-4	'Silver	0.74	U		٠,
7440-23-5	Sodium		 B	E	¦P
7440-28-0	Thallium_	0.74	U		¦F
7440-62-2	Vanadium_	6.40	;B;		¦P
7440-66-6	Zinc			ε	P
	Cyanide		1 1		NR

	otor	Before:	DK GRAY	٢
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Clarity Before:

Texture: COARSE

Tolor After: COLORLESS Clarity After:

Artifacts:

omments:

U.S. EPA - CLP

INORGANIC ANALYSIS DATA SHEET OOC304

Lab Name: CHESTER LABNET-HOUSTON Contract:

Lab Code: KEYTX Case No.: 519A SAS No.: SDG No.:

_Matrix (soil/water): 50IL Lab Sample ID: 940351007

Level (low/med): LOW Date Received: 03/04/94

-% Solids: 78.6

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	c	a	M
7429-90-5	Aluminum	3130.00			P
7440-36-0	Antimony_	7.10	:U;		P
7440~38-2	Arsenic	1.10	1B;	N	¦F
7440-39-3	Barium	22.10	!B;		¦P
7440-41-7	Beryllium	0.25	B:		¦P
7440-43-9	Cadmium	1.30	10¦		¦2
7440-70-2	Calcium		18:		¦P
7440-47-3	Chromium_	3.50	1 :	 	¦Ρ
7440-48-4	Cobalt	1.30	; U;		;P
	Copper		¦B;		P
7439-89-6			1 1		!P
7439-92-1	Lead		1 1	S	¦F
7439-95-4	Magnesium	454.00	18		P
7439-96-5	Manganese	33.50	1 1		ŀΡ
743997-6	Mercury	0.13	U;	*	CV
7440-02-0	Nickel	4.80	IU		¦P
7440-09-7	Potassium	285.00	U		1P
7782-49-2	!Selenium_	0.25	;";	t I	F
7440-22-4			U		P
7440-23-5	Sodium		B	Ξ	P
7440-28-0		I	U		F
7440-62-2	_	7.10	¦B] 	P
7440-66-6	:		1	E	ÌΡ
	Cyanide		į		NR

clor	Before:	BLACK	Clarity	Before:	Texture:	COARSE

plor After: COLORLESS Clarity After: Artifacts:

omments:

A80735

U.S. EPA - CLP

1 EPA SAMPLE NO.
INDRGANIC ANALYSIS DATA SHEET
O00305
Lab Namo: CHESTER LABNET-HOUSTON Contract:

Matrix (soil/water): SOIL Lab Sample ID: 940351008

Level (low/med): LOW Date Received: 03/04/94

Lab Code: KEYTX Case No.: 519A SAS No.: SDG No.:

_ % Solids: 78.9

Concentration Units (ug/L or mg/kg dry weight); MG/KG

CAS No.	Analyte	Concentration	c	Q	М
7429-90-5	Aluminum_	5440.00	- -		P
7440-36-0	Antimony_	7.10	10;		¦Ρ
7440-38-2	Arsenic	1.80	¦B;	N	(F
	Barium		B;		¦P
7440-41-7	Beryllium	0.36	IB!		Į P
7440-43-9	Cadmium	1.30	ĮU;		¦P
7440-70-2	Calcium		B		¦P
	Chromium_			i I	P
7440-48-4	:		!B !		ŀ₽
7440-50-8			8		P
7439-89-6			1 1		P
7439-92-1		18.50	1 1	! !	F
7439-95-4	Magnesium	795.00	B		P
7439-96-5	Manganese				P
7439-97-6			{U	*	CV
7440-02-0	Nickel	_	¦υ¦	 	¦P
	Potassium		lu:		P
7782-49-2		•	;0;] !	<u> </u>
7440-22-4			U		P
7440-23-5	Sodium		B		P
7440-28-0	· · · · · · · · · · · · · · · · · · ·	-	Ü	j i	F
7440-62-2			1	! !	P
7440-66-6				E	P
	Cyanide		1	 	NR

	plor	Before:	DK.GRAY	Clarity	Before:	Texture:	COARSE
_	olor	After:	COLORLESS	Clarity	After /	Artifacts:	
	្វារពេ ខ ា	nts:					
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11-MAR-1994

Page 1

Summary of Analytical Results

Date received: 7-MAR-	1994 Ostoner: MMG , R	C. Job name: H94-03.56
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		Samples						
Chester Lathet ID Sampling Point Data Sampled Customer ID		56-001 OA OC - AFAR-1994 LAB BLANK NA	56-002 X 4-1417-1594 S194000401 NA	56-003 OA OC 47474-1994 8192000401	56-004 OA OC 4-1400-1994 5194000401 145	56-005 X 4-1477-1994 \$194000402	56-006 X 4-14R-1994 5194000403 NR	
Parameters	Unita	-						
Total Organic Halogens (Solid) Analyst: EII, Date/Time: 03/08/94 10:00 Dilution: 1.0	ng/Kg	<20.0	⊘ 3.0	43.0	110 *	<4.0	<33.0	
Total Pet. Hydrocentons (Solid) Analyst: ELL/JCB Date/Time: 03/09/94 14:00	#UJ/Kg	<25.0	<29.0	<2 8.0	90.0 *	≪1.0	57.0	

Dilution: 1.0

* - ¶ Roovery NR - Not Required NN - Not Applicable

n80737

Chester LabMet - HOUSTON

Reported on : 11-MAR-1994

: H94-03.56 Client Hame : FRENCH LIMITED Work Order Sample ID : CAP0307-066 Date Collected : 04-MAR-1994 Sample Wame : H94-03.56-002 Katrix : SOIL : 07-HAR-1994 Project No. : 519A Date Received Percent Moisture : 15 % Date Extracted : OB-MAR-1994 Client ID : \$19A0004 01 Checked by : MJM

Organic Analysis Data Sheet Compounds Analysis by SW846 Nethod 8080

Date Analyzed: 9-MAR-1994 16:26 Dilution Factor: 1.000

		Detection	Detected	
Cas #	Compound	Limits	Conc. ug/kg	
309-00-2	ALDRIN	1.6	1.6 U	_
319-84-6	ALPHA-BHC	0.39	0.39 U	
319-85-7	BETA-BHC	1.2	1.2 Ü	
319-86-8	DELTA-BHC	1.2	1.2 U	
58-89-9	GAMMA-BHC/LINDANE	1.2	1.2 U	
57-74-9	CHLORDANE	5.5	5.5 U	
72-54-8	4,4'-DDD	2.0	2.0 U	
72-55-9	4,4'-DDE	1.2	1.2 U	
50-29-3	4.4'-DDT	4.7	4.7	
60-57-1	DIELDRIN	0.78	0.78 U	
959-98-8	ENDOSULFAN I	7.8	7.8 ป	
33213-65-9	ENDOSULFAN II	7.8	7.8 U	
1031-07-8	ENDOSULFAN SULFATE	3.9	3.9 0	
72-20-8	ENDRIN	2.4	2.4 U	
7421-93-4	ENDRIN ALDEHYDE	3.9	3.9 U	
76-44-8	HEPTACHLOR	1.2	1.2 U	
1024-57-3	HEPTACHLOR EPOXIDE	2.0	2.0 U	
72-43-5	METHOXYCHLOR	20	20 U	
8001-35-2	TOXADHENE	94	94 U	
12674-11-2	AROCLOR-1016	20	20 U	
11104-28-2	Aroclor-1221	20	20 U	
11141-16-5	AROCLOR-1232	20	20 U	
53469-21-9	Aroclor-1242	20	20 U	
12672-29-6	AROCLOR-1248	20	20 U	
11097-69-1	AROCLOR-1254	20	20 U	
11096-82-5	AROCLOR-1260	20	20 U	

U = Undetected at the Listed Detection Limit .

J = Compound is present, but below the Detection Limit.

B = Compound is also found in Blank.

Chester LabNet - NOUSTON

Reported on : 11-MAR-1994

Client Name : FRENCH LIMITED Work Order : H94-03.56 Sample In : CAP0307-065 Date Collected : 04-MAR 1994 Sample Name : H94-03.56-005 Matrix : SOIL Project No. : SloA Date Received : 07-NAR-1994 . Percent Moisture : 20 % Date Extracted : 08-HAR-1994 Client ID : 519A0004 02 Checked by · MIA

Organic Analysis Data Sheet Compounds Analysis by SW846 Kethod 8080

Date Analyzed: 9-MAR-1994 15:40 Dilution Factor: 1.000

		Detection	Detected	
Cas #	Compound	Limits	Conc.	ug/kg
309-00-2	ALDRIN	1.7	1.7	Ū
319-84-6	ALPHA-BHC	0.42	0.42	· . U
319-85-7	BETA-BHC	1.3	1.3	tr
319-86-8	DELTA-BHC	1.3	1.3	U
58-89-9	GAMMA-BHC/LINDANE	1.3	1.3	IJ
57-7 4-9	CHLORDANE	5.9	5.9	Ü
72-54-8	4,4'-DDD	2.1	2.1	U
72 - 55- 9	4,4'~DDE	1.3	1.3	U
50-29-3	4,4'-DDT	5.0	5.0	u
60-57-1	DIELDRIN	0.84	0.64	U
959-98-8	ENDOSULFAN I	8.4	8.4	U
3 3213- 65-9	ENDOSULFAN II	8.4	8.4	U
1031-07-8	ENDOSULFAN SULFATE	4.2	4.2	IJ
72-20-8	ENDRIN	2.5	2.5	U
7421-93-4	ENDRIN ALDEHYDE	4.2	4.2	U
76-44-8	HEPTACHLOR	1.3	1.3	U
1024-57-3	HEPTACHLOR EPOXIDE	2.1	2.1	u
72-43-5	HETHOXYCHLOR	21	21	U
8001~35-2	TOXAPHENE	100	100	U
12674-11-2	AROCLOR-1016	21	21	Ü
11104-28-2	AROCLOR-1221	21	21	U
11141-16-5	AROCLOR-1232	21	21	U
53469-21-9	AROCHOR-1242	21	21	U
12672-29-6	AROCLOR-1248	21	21	IJ
11097-69-1	AROCLOR-1254	21	21	U
11096-82-5	AROCLOR-1260	21	21	U

U = Undetected at the Listed Detection Limit .

J = Compound is prosent, but below the Detection Limit.

B = Compound is also found in Blank.

MAR 11'94 15:13 No.007 P.06

INST ID: 4020

CHESTER DC # ---- B

BAMPLE NUMBER: \$19A000401

DROANICS ANALYSIS DATA SHEET

SAN JACINTO

NORTH AREA

SOILS

LABORATORY NAME: CHESTER LASNET LAB SAMPLE ID NO.: 940308602A BAMPLE MATRIX: BOIL

DATA RELEASE AUTHORIZED DY:..... DATE BAMPLE RECEIVED: 03/07/94

VOLATILES

CONCENTRATION: LOW DATE ANALYZED: 03/11/94

DATAFILE: RU03056V02A

DILUTION FACTOR: 1.20

L'	COMPOUND	DETECTION AMOUNT LIMIT FOUND (MICROGRAMS / KO)
	CO10 CHLORDMETHANE CO13 BROMOMETHANE CO20 VINYL CHLORIDE CO25 CHLOROETHANE CO30 METHYLENE CHLORIDE CO30 METHYLENE CHLORIDE CO30 ACETONE CO40 CARBON DIBULFIDE CO40 1.1-DICHLORDETHENE CO50 1.1-DICHLORDETHANE CO50 1.2-DICHLORDETHANE CO40 CHLOROFORM CO45 1.2-DICHLORDETHANE CO40 CHLOROFORM CO45 1.2-DICHLORDETHANE C110 2-BUTANONE C110 2-BUTANONE C110 1.1.1-TRICHLOROETHANE C120 GARBON TETRACHLORIDE C125 VINYL AGETATE C130 BROMODICHLOROMETHANE C140 1.2-DICHLOROPROMENE C140 C15-1.3-DICHLOROPROMENE C140 C15-1.3-DICHLOROPROMENE C150 TRICHLOROETHANE C160 1.1.2-TRICHLOROETHANE C160 BROMOFORM C170 TRANS-1.3-DICHLOROPROMENE C170 TRANS-1.3-DICHLOROPROMENE C170 TRANS-1.3-DICHLOROPROMENE C170 TRANS-1.3-DICHLOROPROMENE C170 TRANS-1.3-DICHLOROPROMENE C170 TRANS-1.3-DICHLOROPROMENE C170 TRANS-1.3-DICHLOROPROMENE C170 TRANS-1.3-DICHLOROPROMENE C170 TETRACHLOROETHANE C220 TETRACHLOROETHENE C220 TOLUENE C220 TOLUENE C220 TOLUENE C240 ETHYLBENZENE C240 ETHYLBENZENE C240 ETHYLBENZENE	12 U 12 U
	COZO VINYL CHLORIDE	12 U
	COSC METHOLENE CHIEFT	A II
U	CO35 ACETONE	เร็บ
:	CO40 CARBON DIBULFIDE	à Û
1 :	0045 1.1-DICHLORDETHENE	ėй
	CODO 1,1-DICHLORDETHANE	6 U
	CODA 1/K-DIGHTONDETHENE (1018F)	A II
	COAS 1.2-DICHLORDETHANE	ă ŭ
	C110 R-BUTANONE	12 U
٠,	C115 1.1.1-TRICHLORDETHANE	6 U
	CIEO CARBON TETRACHLORIDE	6 V
	C120 SPOMONICU: ODOMETHAND	75 A
i ,	C140 1, 2-DICHLORDPROMANE	ě Ŭ
L	C143 CIE-1. 3-DICHLORDPROPENE	6 W
	C150 TRICHLORDETHENE	6 U
	C165 DIBROMOCHLOROMETHANE	6 U
Ŀ	CIVE BENIENE CIUC IIII ELLICUTURATI UMAT	6 U
_	C172 TRANS-1.3-DICHLOROPROPENE	άŭ
1 .	C175 2-CHLORDETHYLVINYLETHER	12 Ū
Ľ	CLEO BROMOFORM	<u> 6 U</u>
	CROS 4-METHYL-2-PENTANONE	12 U
) !	C220 TETRACHLORDETHENE	12 U
	C225 1.1.2.2-TETRACHLORDETHANE	ěŮ
- .	C230 TOLUENE	6 Ū
1	C235 CHLOROBENZENE	é N
	CRAN REVENE	6 U
_	C250 XYLENES (TOTAL)	å Ŭ

U = UNDETECTED AT THE LISTED DETECTION LIMIT

J = COMPOUND IS PRESENT, BUT BELOW THE LISTED DETECTION LIMIT

INST ID: 4020

CHESTER DC # ---- B

BAMPLE NUMBER: 619A000402

DROANICE ANALYSIS DATA BHEET

SAN JAONTO SOUTH AREA

SOILS

I LABORATORY NAME: CHESTER LABNET Lab Sample ID No.: 9403056088

Sample Matrix: Boil

DATA RELEASE AUTHORIZED BY:..... DATE SAMPLE RECEIVED: 03/07/94

VOLATILES

CONCENTRATION: LOW

DATE ANALYZED: 03/11/94

DATAFILE: RU03056V05B

DILUTION FACTOR: 1,20

	COMPOUND CHLOROMETHANE BROMOMETHANE VINYL CHLORIDE OHLOROETHANE METHYLENE CHLORIDE ACETONE CARBON DIBULFIDE 1.1-DICHLORDETHENE 1.2-DICHLORDETHENE 1.2-DICHLORDETHANE 1.2-DICHLORDETHANE 2-BUTANONE 1.1.1-TRICHLOROETHANE OARBON TETRACHLORIDE VINYL ACETATE BROMODIOHLOROMETHANE 1.2-DICHLOROPROPENE TRICHLOROETHENE DIBROMOCHLOROMETHANE 1.1.2-TRICHLOROETHANE 1.1.2-TRICHLOROETHANE 2-CHLOROETHYLVINYLETHER BROMOFORM 4-METHYL-Z-PENTANONE 2-HEXANONE TETRACHLOROETHENE 1.1.2.2-TETRACHLOROETHANE 1.1.3.2-TETRACHLOROETHANE 1.1.3.2-TETRACHLOROETHANE 1.1.3.2-TETRACHLOROETHANE 1.1.3.2-TETRACHLOROETHANE 1.1.4.2-TETRACHLOROETHANE 1.1.4.2-TETRACHLOROETHANE 1.1.4.2-TETRACHLOROETHANE 1.1.4.2-TETRACHLOROETHANE 1.1.4.2-TETRACHLOROETHANE 1.1.4.2-TETRACHLOROETHANE 1.1.5.2-TETRACHLOROETHANE	DETECTION ANDUN LIMIT FOUND (MICROGRAMS / KO)	F
C010	CHLOROKETHANE	12 U	
C015	BROMOMETHANE	12 U	
COZO	VINYL CHLORIDE	12 U	
COSS	OHLORDETHANE	12 U	
C030	METHYLENE CHLORIDE	6 U	
C035	ACETONE	12 U	
C040	CARBON DIBULFIDE	6 U	
C045	i, i-dichlordethene	6 U	
C050	1.1-DICHLORDETHANE	6 U	
CODS	1.2-DICHLORDETHENE (TOTAL)	6 U	
C060	CHLORDFORM	6 V	
C065	1.2-DICHLORDETHANE	6 U	
C110	2-BUTANDNE	12 U	
C115	1.1.1—Trichlorgethane	6 U	
C120	Carbon Tetrachloride	6 U	
C125	VINYL ACETATE	12 U	
0180	DROMODICHLOROMETHANE	6 U	
C140	1,2-DICHLORDPROPANE	6 U	
G149	CIS-1.3-DIOHLOROPROPENE	6 U	
CIED	TRICHLORDETHENE	6 U	
0193	DIBROMOCHLOROMETHANE	6 U	
C160	1, 1, 2-TRICHLORDETHANE	9 A	
CIGE	BENZENE	6 V	
C172	TRANS-1, 3-DICHLOROPROPENE	6 U	
C178	e-chlordethylvinylether	15 Å	
C180	BROMOFORM	ě Ú	
C205	4-METHYL-2-PENTANONE	12 U	
C210	2-HEXANDNE	is n	
CZZO	TETRACHLOROETHENE	6 U	
CP25	1, 1, 2, 2-TETRACHLORDETHANE	6 U	
6230	TULVENE	6 U	
URBS	CHLUKUBENZENE	6 U	
0240	ETHYLBENZENE	6 U	
C245	WIYRENE APPRALA	6 0	
CSGO	XYLENEB (TOTAL)	6 V	

U = UNDETECTED AT THE LISTED DETECTION LIMIT

J - COMPOUND IS PRESENT, BUT BELOW THE LISTED DETECTION LIMIT

INST ID: 4020 CHEBTER DC # ---- 6

BAMPLE NUMBER: 819A000403

ORGANICS ANALYBIS DATA SHEET

SAN JACINTO PEGGY LAKE SOILS

LABORATORY NAME: CHEBTER LABNET

LAB BAMPLE ID NO.: 940305606

SAMPLE MATRIX: BOIL

DATA RELEASE AUTHORIZED BY:..... DATE SAMPLE RECEIVED: 03/07/94

VOLATILES

CONCENTRATION: LOW

DATE ANALYZED: 03/10/94

DATAFILE: RUD3056V06

DILUTION FACTOR:

1.60

		COMPOUND CHLOROMETHANE BROMOMETHANE VINYL CHLORIDE CHLOROETHANE METHYLENE CHLORIDE ACETONE CARBON DIBULFIDE 1.1-DICHLORDETHENE 1.1-DICHLORDETHENE 1.2-DICHLORDETHENE 1.2-DICHLORDETHENE 1.2-DICHLORDETHANE 2-BUTANONE	DETECTION LIMIT (MICROPRAMS /	AMOUNT FOUND KO)
	C010	CHLOROMETHANE	14 U	
	COID	BRUTUTE I MARE	16 U	
t i	COSS	CH CONTRACT	14 11	•
	COSO	METHVIENE CUI DE TOC	8 11	•
•	8600	ACETONE	16 Ŭ	
•	C040	CARRON DIRUCETOR	e u	
	COAB	1.1-DICHLORDETHENE	ũũ	
L	0050	1.1-DICHLOROETHANE	ĕÜ	
	0053	1.1-DICHLORDETHANE 1.2-DICHLORDETHANE 1.2-DICHLORDETHANE CHLORDFORM 1.2-DICHLORDETHANE 2-BUTANONE 1.1.1-TRICHLORDETHANE CARBON TETRACHLORIDE VINYL ACETATE BROMODICHLORDMETHANE 1.2-DICHLORDPROPANE CIE-1.3-DICHLORDFORDPROPENE TRICHLORDETHANE 1.1.2-TRICHLORDETHANE 1.1.2-TRICHLORDETHANE TRANS-1.3-DICHLORDPROPENE	ΒÜ	
1 :	0400	CHLOROFORM	ëÜ	
	C045	1.2-DICHLORDETHANE	8 U	
	C110	R-BUTANONE	14 U	•
1 :	C115	1.1.1-TRICHLOROETHANE	BU	
	CIBO	CARBON TETRACHLORIDE	B V	
-	C125	VINYL ACETATE	16 U	
	Ctab	BROMODICHLOROMETHANE	<u> </u>	
	G14D	1. R-DICHLORDPROPANE	e V	
	0140	CIB-1, G-DICHLOROPROPENE	e u	
	C150	TRICHLOROETHENE	8 U	
y 1	CIDD	DIBROMOCHLORUMETHANE	8 U	
	0160	1,1,ETRICHLURUETHANE	8 0	
	C172	PERFERE	8 U	
	C175	TRANSTI STUIGHERRUTRUTERE	8 U	
	CIBO	BOUNDRUPA E-CUMOVAE I ULFA TIM LE I LEV	48 V	
—	C205	AMETHYL ACADENTANINE	14 1	
	C210	PHEYANNE	16 11	
7.	CREO	TETRACHLORDETHENE	B U	
	C225	1, 1, 2, 2-TETRACHLORDETHANE	ŭä	
	C230	1.1.2-TRICHLORDETHANE BENJENE TRANS-1.3-DICHLORDPROPENE 2-CHLORDETHYLVINYLETHER BROMOPORM 4-METHYL-2-PENTANONE 2-HEXANDNE TETRACHLORDETHENE 1.1.2.2-TETRACHLORDETHANE TOLUENE CHLORDBENZENE ETHYLBENZENE	ធី ប៉	
21	CRSS	CHLORDBENZENE	ĒŪ	
	C240	ETHYLBENZENE	BU	
	AW-48	COL 1 selection	2 0	
	C250	XYLENES (TOTAL)	e v	

U = UNDETECTED AT THE LIBTED DETECTION LIMIT

J - COMPOUND IS PRESENT. BUT BELOW THE LISTED DETECTION LIMIT

ቦጸበ7/ ባ

· ID:7133286496

MAR 11'94 15:14 No.007 P.09

CHESTER DC # ---- B

SAMPLE NUMBER: 819A000501

ORGANICE ANALYSIS DATA SHEET

SAN JACINTO MAIN POND SEDIMENTS

LABORATORY NAME: CHESTER LABNET LAB SAMPLE ID NO. : 940206002

BAMPLE MATRIX: BOIL

DATA RELEASE AUTHORIZED BY:..... DATE SAMPLE RECEIVED: 03/07/94

VOLATILES

CONCENTRATION: LOW

FRENCH LIMITED

INST ID: 4020

DATE ANALYZED: 03/10/94

SOVOBOROUS :3JITATAD

DILUTION FACTOR: 1.60

	COMPOUND	DETECTION LIMIT (MICROGRAMS /)	ANGUNT FOUND (0)
CO10	CHLOROMETHANE BROMOMETHANE VINYL OHLORIDE CHLOROETHANE METHYLENE CHLORIDE ACETONE CARBON DISULFIDE 1.1-DICHLOROETHENE 1.1-DICHLOROETHANE 1.2-DICHLOROETHANE 1.2-DICHLOROETHANE 2-BUTANONE 1.1.1-TRICHLOROETHANE CARBON TETRACHLORIDE VINYL ACETATE BROMODICHLOROMETHANE 1.2-DICHLOROPROPANE CIS-1.3-DICHLOROFROPENE TRICHLOROETHANE 1.1.2-TRICHLOROETHANE 1.1.2-TRICHLOROETHANE 1.1.2-TRICHLOROETHANE 1.1.2-TRICHLOROETHANE BENZENE TRANS-1.3-DICHLOROPROPENE 2-CHLOROETHYLVINYLETHER BROMOFORM 4-METHYL-2-PENTANONE 8-HEXANONE TETRACHLOROETHENE 1.1.2.R-TETRACHLOROETHANE TOLUENE CHLOROBENIENE ETHYLBENZENE BTYRENE XYLENES (TOTAL)	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	الله الله الله الله الله الله الله الله
C015	BROMOMETHANE	16 U	-
0020	VINYL CHLORIDE	16 U	
COZB	CHLORGETHANE	16 U	
COBO	METHYLENE CHLORIDE	16 U 16 U	
C035	ACETONE	16	18
COAD	CARBON DISULFIDE	₽ U	
Ç045	1.1-Dichlordethene	B U	
COSO	1.1-DICHLORDETHANE	e u	
C023	1,2-Dicklordethene (Total)	B U	
0900	CHLOROFORM	e v	
C045	1, R-DICKLORDETHANE	6 U	
C110	2-BUTANDNE	16 U	
C115	1.1.1—TRICHLORDETHANE	e v	
CIRO	CARBON TETRACHLORIDE	8 V	
CIES	VINYL AGETATE	16 U	
0180	BROMDDICHLOROMETHANE	8 U	
C140	1,2-DICHLOROPROPANE	8 V	
0149	OIB-1: G-DICHLORD ROPENE	BV	
G190	TRICHLURGETHENE	8 U	
CIDD	DIBROMOCHLOROMETHANE	B U	
C160	1, 1, X-TRICHLORDETHANE	BU	
0165 A174	BENZENE .	E U	
61/8	irand-1, 3-dichloropropene	e u	
V17D	#-CUPOKOELMATANATE I H#K	16 U	
CIRO		, B U	
0845	4-INCINTENTENTANDRE	16 U	
C300	KAMERANDNE	16 U	
	I E I RAUGHLUKULT MENE	8 U	
0552	TO A KO K TETRACHLORUETHAND	8 V	
0230 6466		8 U	
じゅう マネダウ	VALUNUURNAENE ETHYA DENIZENE	8 U	
CEAU	GANACNE CILIFACIATEIA	8 U	
C250	XYLENES (TOTAL)	8 U	

U - UNDETECTED AT THE LISTED DETECTION LIMIT

J = COMPOUND IS PRESENT. BUT BELOW THE LISTED DETECTION LIMIT

INST ID: 4020

FRENCH LIMITED

CHESTER DC # ---- B

EAMPLE NUMBER: S19A000502

DROANICE ANALYSIS DATA SHEET

SAN JACNTO OFFSHORE SEDIMENTS

LABORATORY NAME: CHESTER LASNET LAB SAMPLE ID NO.: 940306005

SAMPLE MATRIX: SOIL

DATA RELEASE AUTHORIZED BY:..... DATE SAMPLE RECEIVED: 03/07/94

YOLATILES

CONCENTRATION: LOW

DATE ANALYZED: 03/10/94

DATAFILE: RU03060V05

DILUTION FACTOR:

1.20

/		CHLDROMETHANE BROMDMETHANE BROMDMETHANE UINYL CHLORIDE CHLOROETHANE METHYLENE CHLORIDE ACETONE CARBON DIBULFIDE 1.1-DICHLOROETHANE 1.2-DICHLOROETHANE 1.2-DICHLORDETHANE 1.2-DICHLORDETHANE 2-BUTANONE 1.1.1-TRICHLOROETHANE CARBON TETRACHLORIDE VINYL ACETATE BROMODICHLOROBETHANE 1.2-DICHLOROBETHANE 1.2-DICHLOROBETHANE 1.1.2-DICHLOROBETHANE 1.1.2-DICHLOROBETHANE 1.1.2-TRICHLOROETHANE DIBNOMOCHLOROMETHANE 1.1.2-TRICHLOROETHANE 1.1.2-TRICHLOROETHANE 1.1.2-TRICHLOROETHANE 1.1.2-TRICHLOROETHANE 1.1.2-TRICHLOROETHANE 1.1.2-TRICHLOROETHANE 1.1.2-TRICHLOROETHANE 1.1.2-TRICHLOROETHANE 1.1.2-TETRACHLOROETHANE	DETECTION LIMIT (MICROGRAMS	ANDUNT FOUND / KQ)
; 2000,000	CQ10	CHLOROMETHANE	12 U	
	COID	BROMDMETHANE	12 U	
	C020	VINYL CHLORIDE	12 U	
:	COSS	CHLORGETHANE	. 12 0	
_	COSO	METHYLENE CHLURIDE	6 U	
	C035	AAGNAL SEGLECTOR	12 0	
:	2040 2000	CHREUN DIBULTUE	4 U	
e.	ተለጽሱ	1. CENTON OBSETUAND	6 U	
	COBS	1. Paticul oporturne (Total)	i i	
1	C040	CHLOROFORM	ŭ à	
	COAS	1.2-DICHLORDETHANE	6 U	
•	0110	R-BUTANONE	12 Ŭ	
	C115	1.1.1-TRICHLORDETHANE	Ğ Ü	
1	C120	CARBON TETRACHLORIDE	ä Ŭ	
ن	Cirb	VINYL ACETATE	12 U	
	CLEO	BROMODICHLOROMETHANE	4 V	
1	C140	1.2-DICHLOROPROPANE	6 U	
, pi	C143	CIB-1.3-DICHLORDPROPENE	ų a	
	C1 20	TRICHLORDETHENE	6 U	
	C105	DIBROMOCHLOROMETHANE	ė Ų	
	C160	1, 1, 2-TRICHLORDETHANE	6 U	
₩	CIGD	DENZENE	6 0	
	CITA	TKANBUL G-DICHLORUPROPENE	6 U	
1	C170	S-GHFOI(DEJHAFATUATETURK	12 U	
_	C100	ロロビバルド マンチャン・マン・マン・マン・マン・マン・マン・マン・マン・マン・マン・マン・マン・マン	6 U	
	6510	D-URYANINE	14: U	
1	0220	TETRACHIOROFTHENE	4E U	
<u>'</u>	C225	1.1.2.2~TETRACHLORDETHANE	6 U	
-	0230	TOLUENE	ã ù	
,	C235	CHLOROBENZENE	อับ	
	C240	ETHYLBENZENE	นั้ ลั	
پ	C245	STYRENE	ã Ŭ	
	C250	XYLENES (TOTAL)	ě U	

U = UNDETECTED AT THE LIBTED DETECTION LIMIT

J = COMPOUND IS PRESENT, BUT BELOW THE LISTED DETECTION LIMIT

Chester LabNet - HOUSTON

Reported on : 11-MAR-1994

Client Name : FRENCH LIMITED Work Order : H94-03.56 Sample ID : CAPO307-070 Date Collected : 04-MAR-1994 Sample Name : H94-03.56-006 Hatrix : SOIL Project No. : 819A Date Received : 07-HAR-1994 Percent Moisture : 39 % Date Extracted : 08-MAR-1994 Client ID : 819A0004 03 Checked by : MIM

Organic Analysis Data Sheet Compounds Analysis by SW846 Method 8080

Date Analyzed: 9-MAR-1994 19:32 Dilution Factor: 1.000

Cas #	as # Compound		Detected Conc. ug/kg	
309-00-2	ALDRIN	2.2	2.2 U	
319-84-6	ALPHA-BHC	0.55	0.55 U	
319-85-7	BETA-BHC	1.6	1.6 U	
319-86-8	DELTA-BHC	1.6	1.6 U	
58-89-9	GANNA-BHC/LINDANE	1.6	1.6 U	
57-74-9	CHLORDANE	7.7	7.7 Ū	
72-54-8	4.4'-DDD	2.7	2.7 🗓	
72-55-9	4 . 4 ' - DDE	1.6	1.6 Ū	
50-29-3	4,4'-DDT	6.6	6.6 U	
60-57-1	DÍELDRIN	1.1	1.1 U	
959-98-8	ENDOSULFAN I	11	11 0	
33213-65-9	ENDOSULFAN II	11	11 U	
1031-07-8	ENDOSULFAN SULFATE	5.5	5.5 U	
72-20-8	ENDRIN	3.3	3.3 U	
7421-93-4	ENDRIN ALDEHYDE	5.5	5.5 ti	
76-44-8	HEPTACHLOR	1.6	1.6 U	
1024-57-3	HEPTACHLOR EPOXIDE	2.7	2.7 U	
72-43-5	NETROXYCHLOR	27	27 U	
8001-35-2	TOXAPHEUR	130	130 U	
12674-11-2	AROCLOR-1016	27	27 บ	
11104-28-2	AROCLOR-1221	27	27 V	
11141-16-5	AROCLOR-1232	27	27 U	
63469-21-9	AROCLOR-1242	27	27 U	
12672-29-6	AROCLOR-1248	27	27 U	
11097-69-1	AROCLOR 1254	27	27 U	
11096-82-5	AROCLOR-1260	27	27 U	

U = Undetected at the Listed Detection Limit .

J = Compound is present, but below the Detection Limit.

B = Compound is also found in Blank.

/ U.S. EPA - CLP

EPA SAMPLE NO. INORGANIC ANALYSIS DATA SHEET ab Name: CHESTER LABNET-HOUSTON Contract:

1 ab Code: KEYTX Case No.: \$19A SAS No.:

SDG No.:

1atrix (soil/water): SOIL

Lab Sample ID: 940356006

Level (low/med): LOW

Date Received: 03/07/94

Solids:

60.5

Concentration Units (ug/L or mg/kg dry weight): MG/KG

	•	•	1 (1
CAS No.	Analyte .	Concentration	c	Q	М
7429-90-5	Aluminum_	13000.00			P
7440-36-0	Antimony_	9.30	וטן		¦P
7440-38-2	Arsenic	9.70	1 1	+	F
	Berium		1 1		!P
7440-41-7	Beryllium	1.10	IB!		¦P
7440-43-9	Cadmium	1.70	יטן		P
7440-70-2	Calcium		! !	E	P
	Chromium_		1 1		P
7440-48-4	Cobalt	9.20	B		P
	Copper		1 1		P
7439-89-6			1 1		P
7439-92-1			1 1	N	F
7439-95-4	Magnesium	5520.00	1 !	Ε	¦₽
7439-96-5	Manganese	1280.00	1 1		P
	Mercury		1 1		CV
7440-02-0	Nickel	18.00	1 1		!P
7440-09-7	Potassium	2670.00	1 1		l P
	Selenium_		U		}F
7440-22-4	Silver	0.99	10;		¦P
7440-23-5	Sodium	6090.00	1 1		(P
7440-28-0			U		F
7440-62-2	Vanadium_		ĺ		P
	Zinc		1 1		P
	Cyanide	1	; ;		NR

olor Before: GRAY Clarity Before:

Texture: COARSE

or After: COLORLESS Clarity After:

Artifacts:

) DMM	ments:
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1461-1444-II

914080

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Summy of Antlylical Results

09.80-16H : smart cbt. . JM., THIR : Tempotat. 1984-1984 : bewiesen eded

ysecose # = * New Hearings All = No 150 per per per per per per per per per per						
(a) April 1951. Hydrocarbons (Solids) SCIALIS : 35(10) Date/Inc: (3)(09/94 15:30 Dilution: 1.0	වුද⁄දින	0,25	0.04>	0.65>	* EOT	0°TS>
(bites) aregotes otnegod tabit 2011 : Septent 00:41 40/80/fil : smir/ated 0.1 : mibulist	By/fm	0.02>	0.∞	0°72>	* eot	0.18>
Paracters.	ह सस्पा					
Creater 12/16t ID Empling Foint 18te Empled Creater ID	71 D 9	2001 14 0C 14 0C 14 0C 14 0C 14 0C 16 0C 1	500-03 X 51974-1994 51974000001 74	105 212500201 24 00 00-00	152 27 (20) 27 (20)	60-005 X 74477-1994 5126-100502 Asi
	•	•				

Chester LabNet - HOUSTON

Reported on : 11-MAR-1994

Client Name: FRENCH LINITED Work Order: H94-03.60
Sample ID: CAPO307-077 Date Collected: 07-MAR-1994

Sample Name: H94-03.60-002 Katrix : SOIL

Project No.: 819A Date Received: 07-MAR-1994
Percent Moisture: 39 % Date Extracted: 08-MAR-1994

Client ID : S19A0005 01 Checked by : MJM

Organic Analysis Data Sheet Compounds Analysis by SW846 Method 8080

Date Analyzed: 10-MAR-1994 00:58 Dilution Factor: 1.000

Cas #	compound		Detected Conc. ug/kg
309-00-2	ALDRIN	2.2	2.2 U
319-84-6	ALPHA-BHC	0.55	0.55 U
319-85-7	Beta-Bhc	1.6	1.6 U
319-86-8	DELTA-BHC	1.6	1.6 U
58-89-9	ganha-bhc/lindane	1.6	1.6 U
57-74-9	CHLORDANE	7.6	7.6 บ
72-54-8	4,4'-DDD	2.7	2.7 U
72-55-9	4,4'-DDE	1.6	1.6 U
50-29-3	4,4'-DDT	6.6	6.6 U
60-57-1	DÍELDRIN	1.1	1.1 U
959-98-8	endosulfan i	11	11 U
33213-65-9	endosulfan II	11	11 · U
1031-07-8	endosulfan sulfate	5.5	5.S U
72-20-8	ENDRIN	3.3	3.3 U
7421-93-4	ENDRIW ALDEHYDE	5.5	5.5 U
76-44-8	HEPTACHLOR	1.6	1.6 U
1024-57-3	REPTACHLOR EPOXIDE	2.7	2.7 t
72-43-5	Nethoxycklor	27	27 U
8001-35-2	TOXAPHENE	130	130 U
12674-11-2	AROCLOR-1016	27	27 ป
11104-28-2	AROCLOR-1221	27	27 U
11141-16-5	AROCLOR-1232	27	27 ช
53469-21-9	AROCLOR-1242	27	27 U
12672-29-6	AROCLOR-1248	27	27 บ
11097-69-1	AROCLOR-1254	27	27 U
11096-62-5	AROCLOR-1260	27	27 U

U = Undetected at the Listed Detection Limit .

J - Compound is present, but below the Detection Limit.

B = Compound is also found in Blank.

Chester LabNet - HOUSTON

Reported on : 11-MAR-1994

Client Name : FRENCH LIMITED Work Order : H94-03.60 Sample ID : CAPOSO7-076 Date Collected : 07-MAR-1994 Sample Name : H94-03.60-005 : SOIL Hatrix Project No. : 519A : 07-MAR-1994 Date Received Percent Moisture : 14 % Date Extracted : 08-MAR-1994 Client ID : S19A0005 02 Checked by : MIM

Organic Analysis Data Shest Compounds Analysis by SW846 Method 8080

Date Analyzed: 10-MAR-1994 00:11 Dilution Factor: 1.000 Analyzed by: 8386657

		Detection	Detect	
Cas #	Conpound	Limits	Conc.	1g/kg
309-00-2	ALDRIN	1.6	1.6	U
319-84-6	Alpha-BHC	0.39	0.39	U
319-85-7	Beta-Bhc	1.2	1.2	u
319-86-8	Delta-Bhc	1.2	1.2	ย
58-89-9	GAMMA-BHC/LINDANE	1.2	1.2	U
57-74-9	CHLORDANE	5.4	5.4	U
72-54-8	4,4'-DDD	1.9	1.9	U
72-55-9	4,4'-DDE	1.2	1.2	U
50-29-3	4 . 4 ' - DDT	4.7	4.7	ti
60-57-1	DIELDRIN	0.78	0.78	U
959-98-8	ENDOSULFAN I	7.8	7.8	U
33213-65-9	Endosulfan II	7.8	7.8	u
1031-07-8	ENDOSULFAN SULFATE	3.9	3.9	u
72~20-8	ENDRIH	2.3	2.3	U
7421-93-4	ENDRIN ALDEHYDE	3.9	3.9	U
76-44-8	HEPTACHLOR	1.2	1.2	Ü
1024-57-3	HEPTACHLOR EPOXIDE	1.0	1.9	U
72-43-5	KETHOXYCHLOR	19	19	U
8001-35-2	TOXAPHENE	93	93	tī
12674-11-2	AROCLOR-1016	19	19	U
11104-28-2	AROCLOR-1221	19	19	t
11141-16-5	AROCLOR-1232	19	19	U
53469-21-9	AROCLOR-1242	19	19	v
12672-29-6	AROCLOR-1248	19	19	U
11097-69-1	AROCLOR-1254	19	10	ט
11096-82-5	AROCLOR-1260	19	19	Ū

U = Undetected at the Listed Detection Limit .

J = Compound is present, but below the Detection Limit.

B = Compound is also found in Blank.

FIFRENCH LIMITED #80749 13:57 No.003 P.01 APR 20'94 ID:7133286496 U.S. EPA - CLP EPA SAMPLE NO. INORGANIC ANALYSIS DATA SHEET 000501 ab Name: CHESTER LABNET-HOUSTON Contract: 1 / _ab Code: KEYTX Case No.: S19A SAS No.: SDG No .: 1atrix (soil/water): SOIL Lab Sample ID: 940360002 _evel (low/med): Date Received: 03/07/94 LOW Solids: 64.4 Concentration Units (ug/L or mg/kg dry weight): MG/KG CAS No. Analyte |Concentration M 7429-90-5 | Aluminum 10800.00 7440-36-0 | Antimony_| 8.70 7440-38-2 | Arsenic___| 9.20 +N 7440-39-3 | Barium___ 101.00 7440-41-7 0.85 |Boryllium| 18: 7440-43-9 |Cadmium_ 1.60 U 7440-70-2 | Calcium_ 7530.00 7440-47-3 | Chromium_ 15.20 7440-48-4 | Cobalt 7.10 18 7440-50-8 | Copper_ 10.30 Iron___ 7439-89~6 16600.00 7439-92-1 |Lead_ 43.50 7439-95-4 | Magnesium | 3660,00 P 7439-96-5 | Manganese | 197.00 P 7439-97-6 | Mercury__ 0.23 10.70 7440-02-0 [Nickel_ 7440-09-7 | Potassium | 2340.00 0.43 7440-22-4 |Silver_ 0.93 IU! N !Sodium_ 3420.00 7440-23-5 |Thallium_ 7440-28-0 1.60 WN F 7440-62-2 !Vanadium_! 23,20 P 7440-66-6 41.20 E P Zinc. Cyanide_ ! NR lor Before: GRAY Clarity Before: Texture: COARSE lor After: COLORLESS Clarity After: Artifacts: omments:

U.S. EPA - CLP

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO. 000502

LAD NAMO: CHESTER LABNET-HOUSTON

Contracti

ab Code: KEYTX

Case No.: 919A GAS No.I

BUG NO. 1

i latily (sull/water): 501L

Lab Sample ID: 940360005

evel (low/med): LOW .

Date Received: 03/07/94

& Solids:

82.8

Concentration Units (uc/L or mu/ku dry weight); Mc/KG

CAS No.	Analyte	 Concentration	C	Q	м
7429-90-5	Aluminum_	347.00	i -	· ——————	- P
7440-36-0	Antimony_		101	 	IP I
7440-38-2	Areenic	0.97	[U]	N	ir i
7440-39-3	Barium	10.60	B		IP I
17440-41-7	Reryllium	0.24	U		ir i
7440-43-9	Cadmium	1.20	lu:		IP !
17440-70-2	Calolum	195.00	18		IP :
7440-47-3	Chromium	0.97	U		P !
7440-48-4	Cobalt	1.20	U		iP :
7440-50-8	Copper	1.20	141		ie i
7439-89-6	Iron	428.00	1 1		IP
7422-92-1	Lead	1,20	1 1	W	15 1
7439-95-4	Magnesium	132.00	¦B¦		P
7437-76-6	Manuaneee	n.00	1 1		110
17439-97-6	Mercury	0.12	U		CV
7440-02-0	Nickel	4.60	lni		JP ¦
7440-09-7	Potassium	271.00	U		P
7782-49-2	Selenium_	0.24	U		15 1
17440-22-4	Silver	0.72	; U;	N	¦₽ ¦
17440-23-5	Sodium	254.00	!A!		[P]
7440-20-0	Thalllum_	0.24	iul	WN	F
7440-62-2	Vanadium_	0.97	iui		P
7440-66-6	Z1nc	2.70	B;	E	IP !
	Cyanide				NR
·	ii		i — i		أجيب أ

olor Before: BROWN

Clarity Before:

Texture:

COARSE

lor After: COLORLESS

Clarity After:

Artifacts:

omments:

FORM I - IN

3/70

000004

7133086496

88 20 24 MED 14:06 #80751

11-MR-1994

Page 1

Surery of Aralytical Results

Date received: 7-MAR-1994	Customer: FIEG , INC.	Job name: 1894-03.55
		•

		Sarples		
Chaster 1888st ID Simpling Point Date Simpled Oustoner ID		63-001 OA OE - FAM-1994 IAB BLANK IM	55-002 X 4-1971-1991 \$19000301 BN WATER COMP	55-003 X 5-1497-1994 SI90000302 NA SJ WATER COMP
PRINCIPLE	Units	1.60	BM MHG COM	30 WHEE CONF
Ameria Mitropen es N Analyst: 83/ Dats/Time: 03/08/94 13:36 Dilution: 1.0	my/ti	⊘.10	0.11	0.11
Mitrota Analyst: 837 Data/Tima: 03/10/94 11:00 Dilution: 1.0	mg/L	⊴0.0 6	40.05	◆0.05
Octionische Prospierum Analyst: JOB Date/Mino: 03/07/94 12:00 Dilution: 1.0	_	43.0 1	40.01	4.01
Total Organic Ralogaes Acalysts 1955 Data/Dimas 03/09/94 09:00 Dilutions 1.0	eg/L	<0.005	0.20	0.20
Total Pat. Hydrocenbons Analyst: EXI/JCB Data/Time: 03/08/94 13:00 Dilubion: 1.0	myl.	€0.50	⋖0′21	40.52

^{* - *} Recovery HR - Not Required HR = Not Applicable

MAR 11'94 15:11 No.CO7 P.04

KEYSTONE DC # ---- B

I INST ID: SIEF

BAMPLE NUMBER: 519000301

DROANICS ANALYSIS DATA SHEET

BROWNWOOD MIDDLE POND

LABORATORY NAME: CHESTER LABNET ENV. LAB SAMPLE ID NO.: 940305502 | SAMPLE MATRIX: WATER

CASE ND.: ---GC REPORT NO.: WATER

1 / SAMPLE MATRIX: WATER

DATA RELEASE AUTHORIZED BY:.....

CONTRACT NO.: --

DATE BAMPLE RECEIVED: 03/07/94

VOLATILES

CONCENTRATION: LOW

DATAFILE: SUOJOSSVOZ

DATE ANALYZED: 03/09/94

DILUTION FACTOR: 1.00

	COMPOUND CHLOROMETHANE BROMOMETHANE BROMOMETHANE VINYL CHLORIDE CHLOROETHANE METHYLENE CHLORIDE ACETONE GARBON DIBVLPIDE 1.1-DICHLOROETHANE 1.2-DICHLOROETHANE 1.2-DICHLOROETHANE 2-BUTANONE 1.1.1-TRICHLOROETHANE CARBON TETRACHLORIDE VINYL ACETATE BROMODICHLOROMETHANE 1.2-DICHLOROFTHANE CIB-1.3-DICHLOROFTHANE CIB-1.3-DICHLOROFTHANE DIBROMOCHLOROMETHANE 1.1.2-TRICHLOROETHANE BENZENE TRANB-1.3-DICHLOROFROPENE TRANB-1.3-DICHLOROFROPENE TRANB-1.3-DICHLOROFROPENE 2-CHLOROETHYLVINYLETHER BROMOFORM 4-METHYL-2-PENTANONE 2-HEXANONE TETRACHLOROETHANE 1.1.2.2-TETRACHLOROETHANE TOLUENE CHLOROBENZENE ETHYLBENZENE STYRENE XYLENES (TOTAL)	DETECTION LIMIT	AMOUNT FOUND
	منز منت المدارك عند فقد فقد فها وله المدارك الكافئة الله فلك فلك الله الله الله الله الله الله الله ال	o familiar and state from the state file file and state the state of the state of the state of the state of the	n der den eine den sich gene ben den bei dem dem den den den den den den den den den den
COTO	CHLOROMETHANE	10 U	
COIB	BROMOMETHANE	10 U	
COND	VINYL CHLORIDE	10 U	
C025	CHLORDETHANE	10 U	
0020	METHYLENE CHLORIDE	5 U	
COSS	ACETONE	10	4 J
C040	GARBON DISULFIDE	5 U	
CO45	1, 1-DICHLORDETHENE	5 U	
COBO	1.1-DICHLORDETHANE	5 U	
C053	1-2, DICHLORDETHENE (TOTAL)	5 U	
COPO	CHLOROFORM	5 U	
COP2	1.2-DICHLOROETHANE	5 U	
Clip	R-BUTANDNE	10 U	
C115	1, 1, 1-TRICHLOROETHANE	5 U .	
C120	CARBON TETRACHLORIDE	\$ U	•
C125	VINYL ACETATE	10 U	
C180	BROMODICHLOROMETHANE	10 U	
C140	1.2-DICHLOROPROPANE	5 U	
C143	CIB-1, 3-DICHLOROPROPENE	5 U	
C150	TRICHLORDETHENE	5 U	
C155	DIBROMOCHLOROMETHANE	5 U	
C160	1.1.2-TRICHLORDETHANE	5 U	
C165	BENZENE	5 U	
C172	TRANS-1.3-DICHLOROPROPENE	5 U	
C175	2-CHLOROETHYLVINYLETHER	10 Ü	
C180	BROMOFORM	ខ ប	
C205	4-METHYL-2-PENTANONE	10 Ü	
C210	2-HEXANDNE	10 U	
C220	TETRACHLOROETHENE	5 U	
C225	1, 1, 2, 2-TETRACHLORDETHANE		
C230	TOLUENE	5 Ū	
C235	CHLOROBENZENE	ទី ប៉	
C240	ETHYLBENZENE	5 U	
C245	STYRENE	ร บั	
0250	YVIENES (TOTAL)	K Ü	

U - UNDETECTED AT THE LISTED DETECTION LIMIT

13 - COMPOUND IS PRESENT. BUT BELOW THE LISTED DETECTION LIMIT

KEYSTONE DC # ---- B

BAMPLE NUMBER: 619000302

ORGANICS ANALYSIS DATA SHEET

SAN JACN70 MAIN POND

LABORATORY NAME: CHEBTER LABNET ENV.

LAR BAMPLE ID NO.: 940305603 GC REPORT NO.: W/F
SAMPLE MATRIX: WATER CONTRACT NO.: -DATA RELEASE AUTHORIZED BY: DATE BAMPLE RECEIVED: 03/07/94

CASE ND. : ---

WATER

VOLATILES

CONCENTRATION: LOW

INST ID: BIEF

DATE ANALYZED: 03/09/94

DATAFILE: 5U03055V03Z

DILUTION FACTOR: 1.00

		COMPOUND CHLOROMETHANE BROMOMETHANE BROMOMETHANE VINYL CHLORIDE CHLOROETHANE METHYLENE CHLORIDE 1.1-DICHLOROETHENE 1.1-DICHLOROETHENE 1.1-DICHLOROETHENE 1.2-DICHLOROETHANE 2-BUTANONE 1.1.1-TRICHLOROETHANE CARBON TETRACHLORIDE VINYL ACETATE BROMODICHLOROMETHANE 1.2-DICHLOROPROPANE CIB-1.3-DICHLOROPROPENE TRICHLOROETHENE DIBROMOCHLOROMETHANE 1.1.2-TRICHLOROETHANE BENZENE TRANB-1.3-DICHLOROPROPENE 2-CHLOROETHYLVINYLETHER BROMOFORM 4-METHYL-2-PENTANONE R-HEXANONE TETRACHLOROETHENE 1.1.2.2-TETRACHLOROETHANE TOLUENE CHLOROBENZENE ETHYLBENZENE ETHYLBENZENE GTYRENE XYLENEE (TOTAL)	DETECTION LIMIT (MICROGRAME	AMOUNT FOUND / LITER)
	0010	CHLOROMETHANE	10 U	
	COIR	BROMOMETHANE	10 U	
	COZO	VINYL CHLORIDE	10 U	
	CO25	CHLOROETHANS	10 U	•
	020	METHYLENE CHLORIDE	5 U	
	C035	ACETONE	10	· 6 J
	040	CARBON DIBULFIDE	ຸ 5 ບ	
	C045	1,1-DICHLORDETHENE	5 U	
•	COPD	1, 1-DICHLOROETHANE	5 V	
	C053	1-2, DICHLORDETHENE (TOTAL)	5 U	
	C070	CHLOROFORM	5 U	
,	C092	1.2-DICHLORGETHANE	5 ប	
	C110	2-BUTANDNE	10 V	
, (C112	1, 1, 1-TRICHLORDETHANE	5 U	
(C150	CARBON TETRACHLORIDE	5 U	
	CIRB	VINYL ACETATE	10 0	
, 1	C130	Bromodichloromethane	10 U	
•	C140	1.2-DICHLOROPROPANE	<u> </u>	
	C143	CIS-1.3-DICHLOROPROPENE	5 U	-
	C150	TRICHLORDETHENE	5 U	
4 (C135	DIBROMOCHLOROMETHANE	5 U	
•	C190	1, 1, 2-TRICHLORDETHANE	ន ប	
: (C165	BENZENE	5 U	
, (C178	TRANS-1.3-DICHLOROPROPENE	ខ ប្	
•	C175	2-CHLORDETHYLVINYLETHER	10 U	
	CIBO	BROMOFORM	ទី ប្	
į (C205	4-METHYL-2-PENTANONE	10 U	
.i (C210	R-HEXANGNE	10 U	
(CSSO	TETRACHLOROETHENE	BU	
1	C225	1, 1, 2, 2-TETRACHLOROETHANE	5 U	
· (C230	TOLUENE	5 U	
■.	C235	CHLOROSENZENE	5 U	
	U240	MINYLBENZENE	5 U	
1	C245	HTYRENE	5 U	
_	C 25 0	XYLENES (TOTAL)	ט פ	

⁻ UNDETECTED AT THE LISTED DETECTION LIMIT

J = COMPOUND IS PRESENT. BUT BELOW THE LISTED DETECTION LIMIT

Chester Lablet - HOUSTON

Reported on : 9-MAR-1994

Client Name : FRENCH LIMITED Work Order : H94-03.55 Sample TD : CBP0307-057 Date Collected : 04-MAR-1994

Sample Wame : H94-03.55-002 Matrix : WATER

Project No. : 5190 Date Received : 07-MAR-1994 Client ID : \$1900003 01 Date Extracted : 07-NAR-1994

Checked by · MIM

Organic Analysis Data Sheet Compounds Analysis by 8W846 Nethod 8080

Date Analyzed : 9-MAR-1994 09:27 Dilution Factor : 1.000

Cas #	Compound	Detection Limits	Detected Conc. ug/l
309-00-2	ALDRIK	0.040	0.040 U
319-84-6	Alpha-Bhc	0.010	0.010 B
319-85-7	Beta-Bhc	0.030	0.030 U
319-86-8	Delta-Bhc	0.030	0.030 U
58-89-9	gawa-bhc/lindane	0.030	0.030 U
57-7 4 -9	CHLORDANE	0.14	0.14 U
72-54-B	4,4'-DDD	0.050	0.050 B
72-55-9	4,4'-DDE	0.030	0.030 U
50-29-3	4,4'-DDT	0.12	0.12 U
60-57-1	Dieldrin	0.020	0.020 V
959-98-8	endosulfan I	0.20	០.20 ប
33213-65-9	endosulfan II	0.20	0.20 U
1031-07-8	endosulfan Sulfate	0.10	0.10 U
72-20-8	ENDRIN	0.060	០.060 ប
7421-93-4	ENDRIK ALDEHYDE	0.10	0.10 U
76-44-B	HEPTACHLOR	0.030	0.030 U
1024-57-3	HEPTACHLOR EPOXIDE	0.050	0.050 U
72-43-5	Methoxychlor	0.50	0.50 U
8001-35-2	TOXAPHENE	2.4	2.4 U
12674-11-2	AROCLOR-1016	0.50	0.50 U
11104-28-2	AROCLOR-J221	0.50	0.50 U
11141-16-5	AROCLOR-1232	0.50	0.50 U
53469-21-9	AROCLOR-1242	0.50	0.50 U
12672-29-6	Aroclor-1248	0.50	0.50 V
11097-69-1	Aroclor-1254	0.50	0.50 U
11096-82-5	AROCLOR-1260	0.50	0.50 U

U = Undetected at the Listed Detection Limit .

J = Compound is present, but below the Detection Limit. E = Compound is also found in Blank.

Chester LabMet - HOUSTON

Reported on : 9-MAR-1994

Work Order Client Name : PRENCH LIMITED : H94-03.55 Sample ID : CBP0307-056 Date Collected : 05-MAR-1994

Sample Hame : H94-03.55-003 Matrix : WATER

Date Received : 07-MAR-1994 Project No. : 5190

Date Extracted : 07-WAR-1994 Client ID : 81900003 02

Checked by : W2N

Organic Analysis Data Sheet Compounds Analysis by SW846 Method 6080

Date Analyzed : 9-MAR-1994 08:40 Dilution Factor : 1.000

Cas #	Compound	Detection Limits	Detected Conc. ug/l
309-00-2	ALDRIN	0.040	0.040 U
319-84-6	Alpha-BhC	0.010	0.010 U
319-85-7	BETA-BHC	0.030	0.030 U
319-86-8	Delta-BHC	0.030	0.030 U
58-89-9	GAMMA-BHC/LINDANE	0.030	0.030 U
57-74-9	CHLORDANE	0.14	0.14 U
72-54-8	4,4'-DDD	0.050	0.050 U
72-55-9	4,4'-DDE	0.030	0.030 U
50-29-3	4.4'-DDT	0.12	0.12 U
60-57-1	DIELDRIN	0.020	0.020 U
959-98-8	endosulfan i	0.20	0.20 U
33213-65-9	ENDOSULFAN II	0.20	0.20 U
1031-07-8	ENDOSULFAN SULFATE	0.10	0.10 U
72-20-8	ENDRIK	0.060	0.060 U
7421-93-4	ENDRIN ALDERYDE	0.10	0.10 U
76-44-8	HEPTACHLOR	0.030	0.030 U
1024-57-3	REPTACHLOR EPOXIDE	0.050	0.050 U
72-43-5	KETHOXYCHLOR	0.50	០.50 ប
8001-35-2	TOXAPRENE	2.4	2.4 U
12674-11-2	AROCLOR-1016	0.50	0.50 U
11104-28-2	Aroclor-1221	0.50	0.50 B
11141-16-5	AROCLOR-1232	0.50	0.50 U
53469-21-9	Aroglor 1242	0.50	0.50 U
12672-29-6 .	AROCLOR-1248	0.50	0.50 U
11097-69-1	AROCLOR-1254	0.50	0.50 V
11096-82-5	AROCLOR-1260	0.50	0.50 U

U = Undetected at the Listed Detection Limit .

J = Compound is present, but below the Detection Limit. B = Compound is also found in Blank.

11-148-1994

Sameny of Bralytical Results

3th rate: 154-03.54 Outomer: FIRE , INC. Date received: 749R-1994

		Semples						
Chester lettlet ID Smpling Point Date Smpled Contoner ID		SH-COL CH CC CHRR-1994 ITHE BERK NA	54-002 X 4-1011-1991 8195000101 NR	54-030 CA CA CASH-1994 SISEWOOD EDS	St. Ox O. C. Char-1924 E19500100	54-005 X 44534-1994 E19=000102 NA	54-005 X 4-45R-1994 8195000103 NA	
Parameters	Units							
Amenda Mitrogen as N Analyst: 837 Date/Time: 03/08/94 13:36 Dilution: 1.0	7	9.10	01.0	0.10	* 0°68	01.0	9.10	
Mitrata Aralyst: SZV Dete/Time: 03/10/94 11:00 Dilution: 1.0	TOTAL TOTAL	8.	8.8	8. 8	* 0.58	8. 8	<u>8</u> 8	
Ocheropiste Rosporum Analyst: JB Date/Time: f3/07/94 12:00 Dibtion: 1.0	my/L	8.0	6.0	8. B	100	<u>8</u>	♣ ≅	
* - \$ Recommy NR - Not Required NR - Not Applicable								

Somery of Arabytical Results

John Terres: 1504-03.54 Outcomer: Fills , INC. Date monived: 7498-1994

		Samples					
Chester Lather ID Sampling Point Date Sampled Customer ID		54-607 X 4+281-1994 SISEO00104 NE.	54-008 X 5-487-1994 S19500005 NA	54-009 X 5-441-1994 SISTOOLO6 IF	\$4-010 X 5-4713-1994 S195000107 NB	54-011 X 5-4911-1994 619-000108 NA	
Paraneters	Critica						
Amorda Mitropen as N Aralyst: 837 Date/Time: 03/08/94 13:36 Dilution: 1.0	T T	QT'0>	Ø.10	0.00	\$.6 \$	0.10	
Nitrate Aralyst: 637 Date/Tima: 03/10/94 11:00 Dilution: 1.0	机机	& 8	<u>A</u> 8	8.8	8 .	8.	
Othopospista Floghens Aralysti JB Date/Time: 03/07/94 12:00 Dilution: 1.0	TATE OF THE PROPERTY OF THE PR	8. 8	5.9	8.8	8.8 9.	6 .	

* - \$ Booxery NR - Not Regulard NR - Not Applicable